



Volume 190

JULY 27, 1968

No. 4615

## Pharmaceutical Output 1967

GROWTH RATE SLACKENS OFF

PRODUCTION of pharmaceutical preparations in 1967 rose by  $6\frac{3}{4}$  per cent. over 1966 while the chemical industry as a whole achieved a growth rate of  $4\frac{3}{4}$  per cent., according to a review in the *Board of Trade Journal*, July 19.

Although both were higher the growth rate slackened off in the case of pharmaceuticals. There was an average growth rate of 10 per cent. in the years 1958-1966 and in the chemical industry as a whole of nearly 7 per cent. Output of toilet preparations expanded a further 5 per cent. between 1966 and 1967. In the general chemical and dystuffs section and in the pharmaceutical and toilet preparations (which is next in importance) the fall in manpower employed in each of the two years was about 2 per cent. The price index for pharmaceutical preparations was 104 in 1967 against 102 in 1962.

**Chemical Industry** 

PROGRESS ON MANPOWER REPORT
THE Economic Development Committee for the Chemical Industry plans to hold a Conference later this year for representatives of the chemical industry to discuss "in some depth" the problems of communication in the industry. A booklet dealing with the subject is also being prepared. That British management should improve communications was one of the recommendations contained in the report by the team which visited the United States over a year ago to compare productivity between the two countries (see C. & D. April 8, 1967, p. 322). They found U.S. output three times greater per man than in Britain. A progress report on a number of the other recommendations has been issued by the E.D.C. and the National Economic Development Office, 21 Millbank, London, S.W.1, has issued a pamphlet "Productivity and You" for distribution through unions.

**Charges Exemptions** 

EXECUTIVE COUNCIL'S EXTRA STAFF
OVER 10,000 prescription charges
exemption certificates had been dealt
with in only thirty working days.
members of Hampshire Executive
Council were told on July 19. Mr. J. H.
Shaw (clerk) said that about 5,300
were from nursing and expectant
mothers and 5,500 from the chronic

sick. About 30,000 were expected from the former group and 20,000 from the latter during twelve months. Mr. Shaw had reported to the Council's general purposes committee that between four and seven temporary staff would be required to handle the extra work. The committee authorised engagement of temporary staff and purchase of office equipment.

Statutory Committee
NINE CASES TO BE CONSIDERED

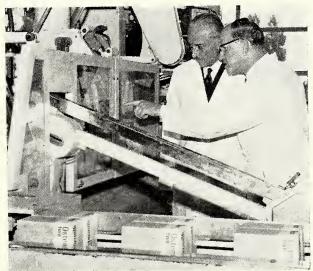
THE Statutory Committee of the Pharmaceutical Society is meeting at 17 Bloomsbury Square, London, W.C.l, at 10.30 a.m. on August 15 to re-open inquiries into the conviction of a member of the Society for offences under the Pharmacy and Poisons Act 1933; into the case of a member of the Society convicted of larceny as a servant; and the convictions of a member of the Society on charges of driving a motor vehicle while unfit through drink or drugs; and of two members of the Society for offences under the Larceny Act, 1916. The Committee will also consider information and evidence

from which it appears that: (1) a member of the Society may have been guilty of misconduct; (2) a member of the Society has been convicted on charges of driving a motor vehicle while unfit through drink; (3) a member of the Society and a director of a body corporate may have been guilty of misconduct by supplying a preparation for an improper purpose; and (4) a member of the Society and a partner in a Scottish partnership may have been guilty of misconduct by causing the publication in a newspaper of an article and advertisement.

Narcotic Drugs

ESTIMATED 1968 REQUIREMENTS

THE International Narcotics Control Board has issued the first supplement to the Estimated World Requirements of Narcotic Drugs 1968 (H.M. Stationery Office, price 4s. 3d.) The figures for the United Kingdom, in kilos except where otherwise noted, are as follows:-Cannabis, 15; coca leaf, 5; cocaine, 116; codeine, 14,760; dextromoramide, 22; diethylthiambutene, 10; dihydrocodeine, 1,305; dihydromorphine, 125 gm; diphenoxylate, 90; dipipanone, 70; ethylmorphine, 205; etorphine, 5 gm; etorphine 3-methyl ether, 500 gm; fentanyl, 20 gm; heroin, 65; hydrocodone, 2; hydromorphone, 200 gm; levorphanol, 2; methadone, 45; methadone-intermediate, 125; morphine, 16,655; morphine dimethyl ether, 5 gm; norcodeine, 1 gm; opium, 245,500; oxycodone, 13; oxymorphone, 15 gm;



PLANT AUTOMATED: New automated plant for the 
packing of baby foods, 
part of a £300,000 
inodernisation scheme, 
was shown to FieldMarshal Sir Gerald 
Templer (Lord Lieutenant for Greater 
London), when he 
visited the Greenford, 
Middles exx, 
headquarters of Glaxo 
Laboratories, Ltd. on 
July 19 to present the 
Queen's Award to Industry (see p. 87), 
With Sir Gerald (left) 
is Mr. F. W. Anderson (factory manager).

pethidine, 1,100; pethidine-intermediate-A, 3,500; pethidine-intermediate-B, 100 gm; pethidine-intermediate-C, 100; phenazocine, 1; phenoperidine, 200 gm; pholcodine, 995; thebacon, —; thebaine, 330. The figures for the Republic of Ireland, again in kilos except where otherwise stated are: — Cannabis, 3; cannabis resin, 300 gm; cocaine, 4'5; codeine, 420; dextromoramide, 2'25; diethylthiambutene, 200 gm; diphenoxylate, 100 gm; dipipanone, 2; ethylmorphine, 1; etorphine, 1 gm; fentanyl, 5 gm; hydromorphone, 50 gm; levorphanol, 60 gm; methadone, 2'5; morphine, 10; normethadone, 2; opium, 120; oxycodone, 500 gm; pethidine, 70; phenazocine, 25 gm; phenoperidine, 30 gm; pholcodine, 13; together with thebaine, 25 gm. The Permanent Central Narcotics Board has issued the Comparative Statement of Estimates and Statistics on Narcotic Drugs for 1966 (U.N. publication sales No. Bil68X14).

### **Bath University**

PHARMACY DEGREE SUCCESSES

THE following candidates are successful in pharmacy degree examinations held at Bath University of Technology in June:— Bachelor of Pharmacy degree (with honours), Honours class 1: Gillian I. Anderton, Sandra E. Mitchell, R. M. Tyrrell. Honours class II, division i: Mary E. Bell, Pauline E. Clayton, C. T. Collier, N. J. Edwards, Jane M. Lue-Chin, Joan C. McPherson, Susan L. Mattinson, I. K. Winterborn. Honours class II, division ii: P. Barnes, K. Buckley, A. R. Enskat, M. A. Johnstone, J. S. Kenney, M. J. Leddy, M. Lloyd, Gillian M. Winter. Honours class III: A. C. Bower, Maxine H. Smith, Glenda D. Tisbury. Bachelor of Pharmacy degree. Katherine M. Bray, M. J. Buxton, Diana M. Franks, Hazel M. Irvine, S. J. Janota, E. A. A. Odeneye, B. J. Perry, K. J. Walker, D. N. White.

### Subject Classification

STANDARD FOR PHARMACEUTICS

UDC 615 Pharmaceutics, Therapeutics Toxicology BS 1000 [615]: 1968 has been published (price 15s.) by the British Standards Institution, 2 Park Street, London, W.1. The publication is the first English Full Edition, for the subjects covered, of the Universal Decimal classification for the use of bibliographers and librarians. The UDC is a development of the Dewey decimal classification commonly used in libraries and is an international undertaking organised by the Fédération Internationaled de Documentation. Among the organisations who cooperated in working out the classification was the Pharmaceutical Society. UDC 615 is one of the principal divisions of Section UDC 61, medicines. Among the subdivisions of UDC 615 are the following "special auxiliary divisions" each of which is further subdivided:—615·01 pharmacological details; 615·03 clinical pharmacology application (administration of medicaments) medication; 615·06 complications during treatment, side effects;

615·07 analysis, standardisation, identification; 615·099 poisoning, addiction. The "principal divisions" are as follows: 615·1 general pharmacy, pharmacy as a profession; 615·2 medicaments classified according to their principal action; 615·3 medicaments classified according to their origin; 615·4 pharmaceutical preparations, medical materials and outfits; 615·8 physiotherapy, physical therapy, radiotherapy and other (non-medical) therapeutic treatments; 615·9 toxicology, general studies of poisons. Division 615·4 contains further subdivisions such as 615·451 liquid preparations, which is again subdivided into 615·451·1 galenicals 615·451·13 prepared by mixing; acids, alcohols and alcoholic extracts (essences), waters and solutions, etc. By continuous subdivision it is thus possible to devise a numerical reference for any required topic.

### **Pesticide Sales**

VALUE UP IN FIRST QUARTER

TOTAL sales of pesticides and allied products by larger manufacturers in the first quarter of 1968 were valued at £10.4 million, nearly £2.0 million higher than in the first quarter of 1967, according to the Board of Trade's Business Monitor. In the same period, sales of all pesticides at nearly £2.2 million were higher by 21 per cent. and sales of insecticides at £1.9 million rose by 22 per cent. Wholesale prices in the first three months of 1968 were some 8 per cent. higher than in the corresponding period of 1967 so that the above comparisons which have been made in terms of current values would be less favourable in volume.

### **Conference Executive**

NOMINATIONS FOR ELECTION

THE British Pharmaceutical Conference executive has nominated the following officers for 1968-69:— Chairman, Dr. E. F. Hersant; Treasurer, Professor J. M. Rowson; Secretary, Mr. K. A. Lees. The following have been proposed for election by the Conference to fill three vacant places on the Executive:— Drs. W. R. L. Brown and A. L. Glenn and Professor N. J. Harper. Other nominations to fill the vacant places may be made in writing by any five members of the Conference to the secretaries at least twenty-eight days before the commencement of the annual meeting (that is before August 12).

### **Uncollected Charges**

SPECIAL ALLOWANCES IN SCOTLAND

AN allowance of 0.05d. per prescription will be paid to all chemist contractors and appliance suppliers in Scotland to cover losses incurred in respect of uncollected prescription charges. The Secretary of State has also decided that, in recognition of the special difficulties in collecting the charges in rural areas, an additional allowance of 0.27d. per prescription will be paid to certain chemists included in a list compiled in consultation with the Pharmaceutical Standing Committee (Scotland). The allowance

are payable on prescriptions dispensed on or after June 10. [In England and Wales the allowances are 0'1d. and 0'3d. respectively.]

### Photographic Equipment

MORE CONSUMERS COMPLAIN

BIG increases have been recorded in complaints about photographic equipment, states the Consumer Council' report for 1967-68 (H.M. Stationer Office, price 3s.). The Council keeps a "discontentment analysis and indexing system" (DAISy) to record details o complaints it and other organisations receive. Complaints about prices, including the price of soap, have shown the greatest increase over the previous year

### Purchase Tax

THREE MEDICINES NEWLY EXEMPTED

THE Purchase Tax (No. 3) Direction 1968 temporarily exempts three furthe "essential" drugs and medicines fron purchase tax as from July 18. The are: Bromhexine hydrochloride [Bisol von tablets and elixir]; fluphenazin decanoate; and trimethoprim mixe with sulphamethoxazole. All are adde to Head II of the Schedule (see C. a. D., Year Book, p. 265).

### Fire at Reading

BLANKET SERVICE CENTRE AFFECTED

THE Monogram service departmen at Reading suffered a fire in part of their premises on July 17. Some sma appliance assembly lines were completely destroyed together with the stores area. The automatic blanke facility was not affected and ever effort is being made to maintain small appliance servicing to minimis temporary delay.

IRISH NEWS

THE REPUBLIC

## Education Committee MEMBERS' NAMES ANNOUNCED

THE director of the Post-graduat Education Committee of the Pharma ceutical Society of Ireland wishes t announce the names of the member of the Committee and the bodies the represent. The list is as follows:— DI W. E. Boles and Mr. R. J. Sempl (Council of the Pharmaceutical Societ of Ireland); Miss J. Burke and Mrs. N McNeary (Association of Hospital and Public Pharmacists); Mr. M. F. Walsh and Mr. C. McDermott (Irish Pharma ceutical and Medical Representatives Association); Mr. C. S. O'Connor an Mr. D. Corrigan (College of Pharmac staff); Mr. W. J. Gardner and Mr. W. A. O'Sullivan (Irish Drug Association) Mr. F. J. Barragry and Mr. E. Hughes (Pharmacy Branch, Loca Government Workers Officials' Union

### IRISH BREVITIES

THE REPUBLIC

THE degrees of M.B., B.Ch., an B.A.O. were conferred on Mr. Davi P. Miller, son of the vice-president of the Pharmaceutical Society of Irelan (Mr. T. R. Miller) at a recent ceremon in Trinity College, Dublin.

### NEWS IN BRIEF

THE index of retail prices in June was 125.4 (January 1962=100) compared with 124.9 in May. Among the rrincipal changes affecting the index was the re-introduction of National Health Service prescription charges.

THE Chemical Society announces that urther delays have necessitated postoning its move to Burlington House see C. & D. July 13, p. 25) which will now take place between August 2 and t. The Library will be closed to visitors on August 3.

THE ten millionth visitor to the Deign Centre, 28 Haymarket, London, W.1, is expected within the next two weeks. The visitor will be able to hoose a gift worth up to £50 from goods on display at the time. The entre provides a permanent shop vindow for the best of Britain's modern onsumer goods.

THE results of a study of the new uburban shopping centre at Cowley, bxford are to be published shortly by the "Little Neddy" for Distributive Trades. The conclusions should be elevant to many similar areas and be of value to retailers and marketing experts, says the E.D.C. Newsletter No. 6.

Two young trainees from the Worthng factory of Beecham Research Laboratories, Miss Janice Wickens and Miss Christine Smith, were among fifty young people who discussed and reported on the problems of their own obs and their employers' jobs at a esidential five-day conference organsed by the Industrial Society at Sussex University, recently.

An award under the Royal Society and Nuffield Foundation Commonwealth bursaries scheme will enable of the C. Mital (senior lecturer in harmacy, University of Science and Technology, Kumasi) to learn new malytical techniques in research involved in the accelerated stability nalysis of pharmaceuticals, at the University of Strathclyde, for six nonths from July, 1969.

THE Glaxo Travelling Fellowships or British Science Writers (worth £500 ach) were presented at Stationers' hall, ondon on July 22 to Mr. Peter Fairey, B.A., science correspondent of the evening Standard and science advisor ITV News, and Mr. Ian Fazey, S.C., science and education correspondent of the Birmingham Post. The fellowships enable the selected writers o visit scientific institutions overseas.

THE possibility of the council assisting a chemist to remain open late was iscussed by Bootle, Lancs, town council, recently. It was said that since 1966 he number of chemists in the town ad been reduced from twenty-two to ixteen there now being 5,500 residents each chemist. After-hours dispensing was a public service, not a profit naking one. The chairman of the housing committee said that the question was outside the jurisdiction of the touncil. A late night service was needed and the town clerk would communicate with the local Executive Council about

## TOPICAL REFLECTIONS

By Xrayser

The changing scene

The brief historical accounts of the British Pharmaceutical Conference which appear from time to time from the pen of E. H. Shields bring home forcibly the changes in the practice of pharmacy in the current century (p. 55). I was not present at Brighton in 1905 or Birmingham in 1906, but I have to confess I could have been. That any contribution I might have made to the deliberations was unlikely to be of great moment is no matter, for the same might be said today. My knowledge of, for example, the effect of peptone on the inactivation of bacteriophage by chemical antimicrobial agents would not add much to more recent scientific discussions. But the article of your contributor refers to people I knew, and some of the ancient mariners in the photograph of the enscheduled excursion to Paris were probably younger than I am now. Thus do we bridge the decades and the centuries. The dislike amounting almost to disdain of the concentrated infusion had abated by the time I made my bow in pharmacy. Their convenience was undoubted even if their advent had created a gulf between the disciples of Galen and their offspring, but I recall that even in my early experience the infusion pot was in regular use. The top-hatted physician had not entirely disappeared from the stage, and there were still some who preferred fresh infusions and said so. There was, in consequence, a bruising of buchu leaves and an aromatic odour pervading the pharmacy, mingling with other pleasant essences to produce an atmosphere that is now gone for ever. One cannot imagine today a discourse on the local flora as part of the Conference, but Mr. Claridge Druce seems to have made a practice of making such contributions. Mr. Rutherford Hill, I note, commented that his only view of the Sussex flora was confined to that from the Brighton express, to which Mr. Druce replied that during an hour's railway journey he had counted two hundred species on the railway embankments. As a matter of interest the point was worth making, even if it might have been construed by the less charitable as a reflection on the railway service.

Senega and soda fountains

From the discussion of concentrated infusions, nux vomica and senega, with a practising background of shop-rounds, framed in a dignified mahogany and lit by incandescent mantles, to the world of today with its gleaming metal and self-service is akin to stepping on to another planet. The transition has been gradual though signs are not wanting that changes may be accelerated as a result of a recent decision by the Lords. If the new Chelsea experiment is a sample of what has been made possible by the litigation, it looks as though one of the litigants may have been cast in the rôle of Sorcerer's Apprentice. Your description of the drugstore on p. 39 reveals that there is a restaurant, a soda-fountain, a "pub," a perfumery, candy, tobacco, pharmacy, bays for the sale of records, a newstand, gifts, stationery and picnic bays. The expectation is that customers waiting for prescriptions will either look around the store (to a background of piped music) or take refreshment in one of the other sections. There is no reference to sessions of bingo, but that may yet come as the apprentice's flood waters rise. Meanwhile, the ancient mariners among us will avert our glittering eye and look with hope to the new development contemplated at Runcorn, for in that comparatively unknown town pharmacy's soul may yet be saved.

Co-operation

The Minister of Health (Mr. Kenneth Robinson) has been subjected to a barrage of Parliamentary criticism on the subject of prescription charges. He accepted that there had been difficulties and that additional burdens had fallen on the chemists, and their co-operation had been appreciated. He also indicated, when questioned on the possible use of coloured forms, that such a method had been discussed with representatives of the medical profession and that they had stated that it was unacceptable. He did not complain of lack of medical co-operation, but it is to be hoped that the permanent scheme problems will be shared more fairly.

## The Future Health Service

### NEW AND LARGER AREA AUTHORITIES PROPOSED

A SINGLE authority for each area of the country that would replace Executive Councils, Regional Hospital Boards, Boards of Governors and Hospital Management Committees is proosed by the Minister of Health in a Green Paper published by H.M. Stationery Office (price 3s, 6d.) on July 23. (A separate review is being carried out for Seathard). The carried out for Scotland.) The authority should also be responsible for 'some important functions" now in the hands of local authorities. The proposals, described as "entirely tentative" are put forward as a basis for public discussion and consultation with representative bodies. Principal object of setting up a new area authority would be to give it comprehensive scope for co-ordinating policy and operation of a wide range of services, planning efficient use of complementary resources and striking a balance be-tween community and hospital care. The proposed authorities would be able to enter into contracts with medical and dental practitioners, pharmacists and opticians. Setting up the authorities would not of itself involve changes in the terms of contracts or negotiation procedures. It would have no bearing on method and level of remuneration "nor would there be any question of giving the new authorities power which would trench upon the contractor's individual clinical inde-pendence. Professional and Service Committees would also remain materially unchanged. The new auremain thorities would encourage co-operation between their other services and those provided by dentists, opticians and pharmacists.

### Reasons for Change

Giving reasons for the need for change in the administration of the health services the paper points out that under the existing tripartite divi-sion of the service nearly 700 separate authorities are involved. Those authorities vary widely in size, resources, opportunity and scope. Drawing their funds from different sources causes delay and complication. The report points out that different relationships exist between the Ministry and the local authorities, Executive Councils hospital authorities. In addition, problems of staffing a hospital service by over 350 employing authorities, are said to be formidable. Discussing the aims of the health service the paper says that patterns of care must be con-tinuously adopted to advances in medical, nursing and scientific methods and the services throughout the country must be alert to create and exploit new opportunities in treatment and prevention. A highly dispersed administration is judged less well fitted to achieve the stated objectives with the resources available than a smaller number of strongly staffed management authorities. The present administrative structure is felt to limit the range of those responsible for planning future progress

to their own segment of the service. Furthermore, some hospital regions may perhaps be too large. Hospital Management Groups on the other hand are more or less limited to day-to-day work and their catchments seldom coincide with the areas of the local health authorities or the Executive Councils. Resources are not being used as effectively as they could be, and that is especially true of staff. Among the services it is suggested would especially benefit from unified administration are the maternity and child health services; health care of the long term sick, of the elderly and mentally disordered and priority dental services. In assessing the proposals states the report, account will need to be taken of the recommendations of the Seebohm Committee on the Local Authority and Allied Personal Services (also published on July 23, H.M.S.O. price 31s.) and of the Royal Commission on Local Government in England (expected later).

### Area Authorities

If the new area authorities were to be specially constituted area boards, responsible directly to the Minister says the report, there might be about forty or fifty each with full scope for the efficient and imaginative deployment of comprehensive services. They could vary considerably in size. Each board would comprise a small number of members and its composition would be flexible. Professional members with direct, broad experience of practical problems of the services would be needed. In areas with medical schools, the Minister might appoint extra members nominated by universities. Account would need to be taken of the interests

of local authorities and the Ministe would find comment on those point particularly valuable.

To promote integration there would be a clean break from present divisions committees and departments would no be set up for hospital services or general practitioner services but to cover for example, planning and operation of all services. Other departments of the Board might deal with staffing finance and logistics or supporting services. Dealing with complaints unde a new structure might be helped either if relevant activities of the boards were within the terms of reference of the Ombudsman' or if independent healtly commissioners were appointed.

### Rôle of Departments

Rôle of headquarters departments i seen mainly as the planning and general direction of services. Each department would be staffed by administrativ and professional officers, all responsible to its directing head who might be either an administrative or a professional officer.

The "directors" of the four or fiv functional departments would togethe make up a small Executive which would be responsible to the Board for advis ing it on objectives and policies, or ganising services and executing policie and maintaining services. The chie administrative officer would co-ordinat the work of the directors and presidat meetings of the Executive, A membe of each profession employed in head quarters departments would be desig nated as chief officer of that profession whom other members of the profession employed in the department could con sult on any major professional matters

### **GUILD OF PUBLIC PHARMACISTS**

### Officers for 1968-69 elected

THE council of the Guild of Public Pharmacists, at a meeting in London on July 13, elected Mr. George Raine President for 1968-69. Mr. W. G. Smith was elected Vice-president, and Mr. J. P. Curtis General Secretary. Mr. B. H. Smith, formerly Registrar, became Treasurer and Mr. D. F. Smith Registrar. Mr. C. H. Sykes was elected an honorary member of the Guild following his retirement as chief pharmacist to the London Hospital. The retiring president (Mr. D. F. Smith) welcomed the new members of the Council—Miss M. T. Clarke, Miss J. E. Fleming, Mr. J. P. Curtis and Mr. L. Hanson.

It was reported that Messrs. T. D. Clarke, W. Mott and G. Raine had met officials of the Ministry of Health to discuss the Guild's desire that the Minister should be able to make suitable regulations on the control of preparation and supply of medicines in hospitals: Also the advice of hospital pharmacists should be taken in drafting regulations. They had been assured that although National Health Service hospitals would be exempt as

Crown property from the Medicine Bill it was the Minister's intention to institute by administrative action the controls inquired about and that the Guild would be consulted when the regulations were being formulated.

The salaries secretary reported tha a new salaries claim had been lodged with the management side of Whitley Council Committee C. A full meeting of the Committee would be held late in the month [the meeting has since been postponed]. The recent staffing survey had served to underline the deteriorating position in the hospital service and that information had beer submitted with the salaries claim.

Evidence to be submitted to the Noe Hall Committee by the Guild was con sidered. A draft document was found generally acceptable, but was referred back to the salaries committee for fur ther consideration.

The Editor (Mr. T. D. Clarke) reported that the proposed abstracting service would come into being ir September. Full details would be giver in the next issue of the *Journal of Hospital Pharmacy*.

## "Ready-made" Licences for Pharmacists

LORDS DEBATE MEDICINES BILL

THE Committee Stage of the Medicines Bill was completed in two-and-a-half hours by the members of the House of Lords on the evening of July 18. During the debate the Government gave an assurance about the possibility of ready-made licences for small-scale manufacture being available on demand to "persons of the right qualification, such as pharmacists."

### Representation of Consumer Interests

The debate opened with LORD DONALDSON seeking an amendment to clause I to ensure the appointment of at least one member of the Medicines' Commission "capable of representing consumer and welfare interests." LORD KENNET (Parliamentary Secretary, Ministry of Housing and Local Government) however, said that the Commission's work would be purely scientific where the advice of a "consumer peron" would not be relevant. On the other hand some of the other specialised committees could contain consumer representatives including probably the committee concerned with labelling, the one concerned with the general list and "possibly if there is one concerned with unconventional medicine, herbals, and so on." It was the intention of the Minister of Health to consult with relevant organisations before making appointments to the specialised committees. Lord Donald-son said that if there were consumer representatives on the committees a reat part of the Consumer Council's case would be met.

When discussing Clause 7 LORD KENNET introduced an amendment replacing "field trials" with the description "medicinal tests in animals" and new clauses after Clause 30. He said there had been criticism of Clause 31 hecause it did not sufficiently distinguish between the different factors affecting the use of new drugs in trials in human beings and in tests on animals. In the proposed new clauses control of tests in animals was not limited to tests with a therapeutic purpose. Another criticism of Clause 31 was that in requiring only the importer of a drug or the person "responsible for its composition to hold a certificate," it did not go far enough and would allow an "entrepreneur or even the manufacturer himself," acting through a third party, to conduct trials without a certificate. The new clauses blocked that "escape route."

LORD OGMORE hoped the elaborate series of amendments would not hinder or impair the industry's research practicies and projects. The amendments were agreed,

During the discussion on Clause 18—application for licence— LORD COLE-RAINE said he had an interest in some of the subject matter of the Bill "as the director of a pharmaceutical company, one which also operates a considerable chain of pharmacies." He submitted an amendment enabling Ministers, by order, to designate classes of persons to whom a general licence

might be granted, for the manufacture, sale or supply of medicinal products specified in the order. The amendment was one he had been asked by the Pharmaceutical Society to put forward to make the licensing power more flexible. There were a number of familiar remedies such as Gee's linctus, zinc ointment, glycerin and rose water and glycerin of thymol which the chemist was free to manufacture and put them on his counter for sale. Under the Bill the chemist who did that would be obliged to go through the licensing procedure. There were probably 15,000 chemists' shops accustomed to making such preparations and it would be an intolerable burden on the licensing authority if they were obliged to go through the licensing process.

LORD KENNET, expressing sympathy with what Lord Coleraine had said, added that the Minister of Health agreed that there might be an advantage in arranging for such licences to be available for small-scale manufacture. Rather than give a blanket exemption, it would be a better arrangement to have ready-made licences for smallscale manufacture which would be issued more or less on demand to persons of the right qualification, such as pharmacists. Such arrangements could be introduced without amending the Bill. Lord Coleraine was assured that, subject to the advice of the Medicines Commission, the Minister intended to work out that sort of arrangement as and when the licence scheme came into force. He hoped that Lord Coleraine would withdraw his amendment,

### Licences "On Demand"

LORD COLERAINE: I think it covers the point; but I am not absolutely clear. Do I take it that this would be a licence not for the product but for the manufacturer—for the chemist? LORD KENNET: Those persons in general who want to manufacture something have to get a special licence for that something. That something must be defined in how it is composed and in what it is hoped to do. Persons like pharmacists who are qualified to manufacture simple things should be able to go along and ask for a licence to manufacture familiar, traditional, products. Such licences would be given more or less on demand, without further examination, provided that the Medicines Commission agrees (when it comes into existence) that this should be done. I can inform the Committee that it can be done under the Bill without the Amendment.

The Amendment was withdrawn.
Later, during the Committee stage,
LORD COLERAINE moved another
amendment to Clause 48 [exemptions
for doctors, dentists, veterinary surgeons and veterinary practitioners]
which he said was one to which the
Pharmaceutical Society attached some
importance.

Clause 48 provided for exemptions from the requirements that medicinal

products should be sold only through pharmacies. The purpose of the amendment was to empower the Minister to have oversight of the proposed exemptions. As the Bill stood there was a wide gap between the conditions governing the sale and supply of medicines from pharmacies and the conditions in hospitals and health centres.

LORD COLERAINE said he had noted that the Minister proposed a similar amendment, Later LORD KENNET suggested that Lord Coleraine should withdraw his amendment and another and if he did not think the Government proposals covered what he was seeking then discussions could take place before the Report stage. LORD COLERAINE agreed to withdraw his amendments and if necessary would take up the Minister's offer later.

### Supply to Hospital Patients

When discussing the next amendment LORD KENNET pointed out that Paragraphs (b) and (c) of Clause 48(i) were inserted by Government amendments at a late stage "in another place" to fill a gap in the Bill when it was realised that the supply of a drug to a hospital patient or to the patient of a nurse or midwife technically involved a retail sale or "supply in circumstances corresponding to a retail sale." The amendment had been criticised and the Minister of Health agreed that there might be a case at some future time of relating the hospital and health centre exemption "more closely to the nature of the pharmaceutical services available to the institution concerned and that it would be appropriate to provide for the products which nurses and midwives were to be allowed to supply in the course of their professional practice to be specified."

Towards the end of the debate LORD

Towards the end of the debate LORD CHORLEY referred at length to a matter on which herbalists still laboured under a sense of grievance and felt they were not being "altogether fairly treated." It concerned the Pharmaceutical Society's powers of enforcement. The herbalists felt that pharmacists were their competitors. He understood that the Pharmaceutical Society was on record as wishing to see to it that medicines were only supplied through

registered pharmacists. LORD CHORLEY said one could well understand that the "herbalists, the health food stores and other sorts of people who are, as it were, on the black list of the pharmacists, feel that even if this duty which is given to the Pharmaceutical Society is carried out with integrity, as one would expect it to be, there is a sort of bias." It was not right that some competitors' representatives should be sentatives should have the right of examining books and carry on a job of that kind. Over recent years the consulting medical herbalist had become quite an important profession. To qualify as a consulting medical herbalist involved a four-year course, not dissimilar from the course of studies in medicine which a medical practitioner had to go through. Owing to the comparative paucity of herbalist shops, a great deal of the prescribing and making up of the prescriptions advised by the medical consulting herbalist had to be done on his own premises, either by himself, or if he was a professional man of high standing he might have to employ a "herbal pharmacist" to assist him in the work. It seemed wrong that men in that position should in effect be subject to visits from representatives of the Pharmaceutical Society to examine their "pharmacies" to look at their books and generally carry out the provisions of supervisors. The proposed amendment would

transfer the powers of enforcement against herbalists to the local authority. BARONESS SEROTA, for the Government, pointed out the amendment was similar to that submitted at the Report Stage in the House of Commons. Any question of redistribution of enforcement functions involved the examination and ascertaining of the views of the enforcing authorities affected, or likely to be affected under the Bill. The Minister of Health had given an undertaking to look at the matters involved and if it appeared that the Bill should be amended the amendments would be introduced later. He regretted it had not yet been possible to

conclude the investigation. Barones Serota added she could not advise the Committee to accept Lord Chorley's solution. It would be inappropriate fo local authorities to carry out the en forcement under Clause 59(i).

### Amendment Withdrawn

She hoped the repeated assurance given by the Minister of Health would enable Lord Chorley to withdraw hi amendment. He did so, saying that he had not the slightest doubt that i some authority other than the Phar maceutical Society could be found "upon whom to put this duty" it would be well received by the herbalists.

## Objectives of a New Wholesaler

### ASSURANCES GIVEN ON EXTRA DISCOUNTS

AN audience of about 100, drawn from manufacturing and retail pharmacy heard about the aims and objects of Inpharm, Ltd., (see C. & D., July 13, p. 24), at the inaugural meeting in London, on July 18. Inquirers received assurances that it would be possible to give shareholders the promised extra discounts.

In his introductory remarks, MR. H. W. Tomski (chairman and managing director), said that they were working fast. The company had only been incorporated on July 5 and had since received considerable publicity. Letters of appreciation had been received "from Scotland to Dorset". The Irish Drug Association had also asked whether they could assist. Before dealing with the promoters' reasons for founding Inpharm, Mr. Tomski outlined the decline in the traditional wholesaler and the effect on independent pharmacy.

Pharmacy had more than an academic interest in the survival of the wholesaler, he said, and of the independent wholesaler in particular. The difficulties of maintaining a fully comprehensive pharmaceutical service economically were not new.

The need for collective action in British pharmacy in face of a changing pattern of distribution was outlined in the Report of the Committee of Inquiry set up by the Pharmaceutical Society in 1937. Dealing with pharmaceutical wholesaling, that report said: 'It might be supposed that private retailers faced with the competition of the multiple stores and co-operative societies would have made efforts to obtain control of, at any rate, some portion of the wholesale trade in order that they might derive from such control the same advantages as their competitors. Very little has, however, been done in this direction'. Subsequently various attempts were made to estab-lish pharmacists' sponsored wholesale organisations. Unfortunately, their impact on pharmacy was limited by the handicaps imposed on their early trading during the war years, by the weakness in their organisational structure and by their predominantly defensive attitudes towards meeting the challenges ahead. In that, they were not unique amongst retail groups estab-lished during those years. Whilst wholesale sponsored voluntary chains created compulsory loyalty by binding contracts and were organised on strictly commercial lines, Mr. Tomski claimed that far stronger incentives were needed to create loyalty amongst members of retailer co-operative units than mere membership in name, based on a relatively small volume of purchases. "Members must take an active part and must become actively involved in all aspects of the wholesaler-retailer relationship. Inpharm Ltd, has been established for just that purpose, to get everybody in pharmacy moving and to involve everybody in that movement," he added.

Elaborating on the prospectus he said

Mr. Tomski is leaving Allan & Hanburys, Ltd., after over 20 years with the company. Latterly he has been head of that company's commercial development unit. Mr. Sherman is a director of Beck & Sherman, Ltd., owning six pharmacies and is proprietor pharmacist of another husiness. Mr. Godfrey is a proprietor pharmacist owning five pharmacies.



Mr. H. W. Tomski

it was their intention to purchase an existing wholesaling business in the Greater London area to provide a service by continuing and augmenting the present range of merchandise to include, so far as possible, all chemists' goods: "ethicals", proprietaries, toilet articles, photographics, surgicals, etc. If the premises or equipment should prove inadequate to allow for expansion or for the operation at a maximum economic level, it was proposed to acquire new premises and to estab-lish a modern, well-equipped warehouse and delivery service, using upto-date management techniques including computerisation, although keeping in mind that customer requirements came first. A separate wholesaling company, Inpharm (Wholesaling), Ltd., would be formed, wholly owned by Inpharm, Two wholesalers had already been in touch since the prospectus was published.

When the services were operating

satisfactorily in London, activitie would expand into other areas. I every case, a separate wholesalin company would be established wit initial financial and administrative support from London, again purchasin existing facilities and management an increasing profitability by collectivaction. The regional company woulhave its own board, all executiv directors being appointed locally. Dividends would be payable regionally of the performance of each area company, Inpharm, Ltd. making a charg for all joint services on a "cost plus basis."

In addition to providing a comprehensive pharmaceutical wholesaling



Mr. E. Godfrey

Mr. J. Sherma

service, Inpharm, Ltd. proposed to previde all those services normally under taken at the head office of a multiple concern and which were not adequatel provided for by other organisations in pharmacy. The need for such service and their extent would be discusse regularly by special committees committees in each area.

Discussing some statistics of pharma ceutical businesses Mr. Tomski sai that when announcing the recently proposed merger between Boots an Timothy Whites branches, it was state that both those organisations togethe had a 30 per cent. share of the marke Board of Trade figures in respect of counter sales illustrated the followin increases from 1963 to 1967:—Co-operative chemists, 11 per cent independent chemists, 13 per cent.; and multiple chemists, 29 per cent.

Multiples probably had secured by

Multiples probably had secured be now about half the market, a continuing trend which further weakened the

economic structure of the traditional independent wholesaler. In Greater London there were 2,600 pharmacies of which 1,900 were "independents" The 350 pharmacies represented by Inpharm's "A" shares were about equal to all Boots and Timothy Whites' branches in the area and represent 18 per cent, of all independent pharmacies in Greater London. "We feel that 350 pharmacies would form a solid basis for immediate action.

With an average annual turnover of £25,000 and purchases of £18,000, purchases from wholesalers would amount

to £10,000 a year.

The policy of Inpharm in trading matters was bound to change with changes in the environment in which it operated. Flexibility and speed of action must be the keynotes of its organisational structure but the policy of Inpharm towards its customers

would never change, he claimed.
With Mr. Tomski on the platform were the joint managing directors (Messrs. J. Sherman and E. Godfrey) and Mr. R. Newstone (the company auditor). Replying to a query as to how they intended to get and hold the loyalty necessary for the company's progress the chairman said that the customer would also be a shareholder and would therefore have the greatest of all incentives to purchase from them—financial reward. The company would provide information bulletins regularly and there would be consultations at all levels with meetings held quarterly. Asked about deliveries, particularly of urgent prescription items, he said, a twice-daily delivery was planned. Mr. D. N. SHARPE inquired what would be the company's percentage net profit after allowing the discount but MR. NEWSTONE replied that it was not possible to forecast that.

From the floor it was suggested that the new company would expect the shareholders to nurse the new organisation for the first two years or so as new businesses, starting from scratch, were rarely profitable in that period. The reply was that since it was intended to take over an established business Inpharm would not be starting from

scratch

### No More Competitive

MR. F. R. VALENTINE (toiletries and medicine division, Beecham Group), said "the retail pharmacist is also a high-street trader and is in the midst of aggresive trading". He did not see that the extra discount would make the chemist any more competitive than he was today. The subscriber could not anticipate his dividend in fixing his price. Mr. Valentine suggested that all benefits from bonus parcels should be passed over to the purchaser, a point which the chairman said could well be done after deducting handling expenses. Asked when Inpharm would begin trading, the date of February 1, 1969, was mentioned. "Not before Christbut as soon after as possible" mas said Mr. Tomski. On credit terms a etailer claimed that three well-estabished wholesalers did, on occasions, 'sympathetically" extend the period of ettlement to two to three months.

"Would Inpharm be able to do this?" "We hope to match other wholesalers in credit terms" was the reply.

MR. E. ROBERTS (toiletries and medicines division, Beecham Group), was adamant that manufacturers would not give such extended credit to a wholesaler. He added that so far as the retailers' problems were concerned their answers lay not solely in more discounts but in their moving more merchandise. Some manufacturers operated promotion discount schemes, MR. SHERMAN replied that the committees that were to be set-up would examine such offers and make recommendations whether to take them up or not.

Whilst the meeting was in progress the chairman was also appearing before a much greater audience through the medium of B.B.C. 2 television. Earlier in the day he had been interviewed about Inpharm by a team for the feature "The Money Pro-gramme". Also interviewed on the programme were a number of retail chemists including Mr. R. S. Milner, Richmond, Surrey, and Mr. D. Emanuel, North London. Mr. David Savory gave his views as a wholesaler.

### Statement by Unichem, Ltd.

THE following statement was issued by

Unichem, Ltd., on July 23: Because of the establishment recently of an organisation which has some aims and objects similar to those of Unichem, Ltd., those independent retail pharmacists who are not members of Unichem will be interested to learn of the true facts relating to certain aspects of the organisation.

Unichem was launched nearly thirty years ago, as a retailer sponsored, financed and controlled organisation, and in this context the emphasis must undoubtedly be on "retailer controlled." With the exception of senior management's representatives thereon, the board has always consisted of practising retail pharmacists, who have, throughout the life of the company, worked in the closest liaison with elected representatives of the members at regular meetings. There has always existed between the membership and the management and board of the company, the closest rapport and cordial relationship, which has led to the wishes of the members being taken into account in the operations of the company.

The Ordinary shares can be held solely by pharmacists and right from the initial issue, and at subsequent issues, it is the members who predominantly have taken up the shares available. There has never been any obligation for a member to take up a shareholding, although this was intro-duced when the Leeds subsidiary was established. One of Unichem's original aims was to co-ordinate the buying and the selling power of its members, and the organisation was urging the need for pharmacy modernisation at a time when only the most progressive pharmacists accepted it. Despite the limitations imposed by a number of factors, Unichem has long been offering buying advantage to its members in a number of ways.

ASKED about the Board of Trade's wholesale price index figure for pharmaceutical preparations 1967 EDMUND EMANUEL DELL (Minister of State) informed Mr. N. T. L. FISHER, in a written answer on July 16 that the figure was 103.1 as compared with 134.9 for home market sales taking 1954 as 100. Selective Employment Tax

Mr. Kenneth Robinson (Minister of Health) told Mr. Norman ATKINSON in a written reply on July 16 that the

cost of selective employment tax paid by National Health Service hospitals was expected to be about £32 million

in 1968-69.

### **Hospital Pharmacists**

Mr. J. W. Snow (Parliamentary Secretary of Ministry of Health) in a written answer on July 16 informed MR. H. GURDEN that he was aware some hospital authorities were experiencing difficulty in staffing their phar-

To correct one erroneous comment recently expressed, it must be emphasised that in many ways the stock range at all Unichem depôts is second to none. 'Ethicals' drugs and galenicals and tablets are fully covered, and what the range lacks by way of limitations in the proprietary and toilet field, is more than compensated for by the most comprehensive range of sundries. Readers should know of certain developments in the organisation, of which members have recently been advised by special mailing. This announcement has made generally known details of a separate unit, which works in parallel with Unichem and which has been operating on an experimental basis for some time. Participating members, who have to put up a £100 returnable deposit, are able to buy price-protected volume sellers (not of course "ethicals") in reasonable quantities with a maximum standard discount of  $7\frac{1}{2}$  per cent. on individual items. Direct buying can be reduced to a minimum with consequent reduction in the labour, storage space, capital and book-work which it involves. Expansion has been controlled deliberately to ensure that the budgeted costings were realistic.

The mailing referred also to another operation which will have a very material effect on the future of the organisation. A firm of management consultants has been briefed to undertake a survey, and their recommendations, expected soon, will guide the company in framing future policy. Until then, Unichem cannot be expected to say where or when the next development of buying advantage will be launched. However, the numerous inquiries from both existing and prospective members show that the Unichem know-how is eagerly sought after, and there is no doubt that the organisation is on the threshold of a further era of supreme importance to the independent retail pharmacist. [The company's reaction to comments made by the interviewer in the B.B.C.'s "The Money Programme" is on p. 80]

### IN PARLIAMENT

maceutical departments. The pay of hospital pharmacists was a matter for the appropriate Whitley Council which was considering a salary claim. Long-term organisation was also under consideration by a Working Party.

### Health Centres in Wales

MR. ROY HUGHES asked the MINISTER OF HEALTH about health centres in Wales. In a written reply on July 16 MR. ROBINSON said that one had been opened in 1965, one in 1966, two in 1967 and two more in the first six months of 1968. Seven were now under construction and five more had been approved by the Welsh Board of Health.

### Sainsbury Report

MR. E. J. MILNE asked the MINISTER OF HEALTH what talks he had had with the Trades Union Congress concerning the Government's decision on the implementation of the Sainsbury Report. MR. ROBINSON in a written answer on July 16 indicated he had had correspondence with the Trades Union Congress. Talks would be arranged if the Congress so wish.

### KH3

MR. M. LIPTON asked a number of questions about the preparation KH3 and MR. SNOW in a written answer on July 16 said that he understood that the Dunlop Committee in September 1966 advised the promoter that they had no objection on the grounds of safety, to the marketing of KH3. The Medical Research Council had not investigated the treatment.

### National Health Service Costs

MR. ROBINSON in a written reply to MR. LAURENCE PAVITT on July 16 provided the following information concerning the estimated net ingredient cost of proprietary and non-proprietary preparations dispensed by chemists in England and Wales.

1950 1958 1965 £ million £ million

Proprietary
preparations 6-6 30-2 77-6
Non-proprietary
preparations 9-3 8-7 5-1

On the same day the Minister told Mr. Pavitt that he was not giving advice to general practitioners concerning prescriptions to patients for items costing less than 2s. 6d. He regarded it as a matter that could be left to the doctor's judgement.

### **Prescription Charges**

During question time in the House of Commons on July 16 the Minister of Health dealt with a number of concerning questions prescription charges. MR. P. DEAN wanted to know when the single payment exemption scheme would come into operation and Mr. Robinson replied that he hoped "before the winter." He would not like to be more precise than that at the moment. Mr. G. Campbell, Mr. A. Eadie, Mr. J. Cronin, all asked for statements concerning prescription charges and Mr. ROBINSON said that the regulations providing for the reintroduction of the charges and the exemptions only came into operation on June 10 and it was as yet too early to reach firm conclusions about the arrangements, MR. EADIE pointed out that his mail bag seemed to demonstrate the fact that the form filling part of the administration was regarded as complicated. Mr. Robinson's comment was that despite the wide publicity before the charges were reintroduced he expected that it would be a little while before the public at large became familiar with the arrangements. Preliminary information suggested that had been so and additional burdens had, in consequence, fallen upon chemists, whose co-operation he appreciated, but progressively, he expected, the position to improve. SIR JOHN VAUGHAN-MORGAN asked the Minister to bear in mind "the great cost of administration falling upon hospitals, chemists and others in administering these complicated exemption arrange-ments." Mr. Robinson replied that it Mr. Robinson replied that it had been taken into account. The Minister also told Doctor Shirley SUMMERSKILL that he had no evidence as vet, one way or the other, whether the total number of prescriptions had fallen since the imposition of the charges. LORD BALNIEL wanted the re-examination of the whole position since, in the opinion of many chemists, doctors and the chronic sick, the present arrangements were illogical, unfair and in many ways, muddled. MR. ROBINSON said it would not be possible to take a proper conspectus of the present arrangements until they were completed by the arrangements which he hope to introduce before the winter. Later Mr. ROBINSON told Mr. T. FORTESCUE that he was aware some problems had arisen from the design and layout of the declaration on the back of the form. The Ministry were considering possible improvements.

### **Redundancy Payments Fund**

In a written answer on July 17 MR. R. HATTERSLEY (Under Secretary of State) informed Mr. A. GARDNER that the Chancellor of the Exchequer had issued a new draft order increasing employers' contributions in respect of redundancy payments to 1s, 3d, a week for men and 7d, a week for women with effect from September 2nd, the new draft replaced one issued in May that would have increased the contributions to one shilling for men and sixpence for women in accordance with the Chancellor's budget speech. The new rates were estimated to produce an income of rather more than £1 million per week.

### Consumer Credit

MR. ANTHONY CROSLAND (President, Board of Trade) in a written answer on July 17, said he had no doubt that the Crowther Committee on consumer credit would wish to receive evidence and suggestions from all sources "including the general public". In due course the Committee might invite evidence or suggestions from particular interests, or on particular matters, but if any person wished to put any matter to the Committee he should write to the Secretary, Mr. N. H. Nail, Economic (General) Division 2, Board of Trade, 1 Victoria Street, London, S.W.1.

### Payments to Scottish Chemists

MR. A. EADIE asked the Secretary of State for Scotland about the estimated total cost of the decision of the arbiter on Scotlish chemists remuneration (see C. & D., July 13, p. 26) MR. WILLIAM ROSS (Secretary of State for Scotland) in a written answer on July 17 stated that the payment for additional work to be made to Scotlish chemists for the period June 10 to August 31 covered by the arbiter's award was estimated at £42,000.

### National Giro Service

MR. J. T. STONEHOUSE (Postmaster-General) informed MR. WILLIAM PRICE on July 18 that the National Giro Service has been welcomed by a wide range of businesses. He was encouraged in particular by the large number of companies who had reserved account numbers.

### Prices of Pharmaceutical Products

Mr. Laurence Pavitt asked the Secretary of State for Employment and Productivity on July 22 what machinery existed for consultation between department and the Ministry of Health to restrain increases in the prices of pharmaceutical products, Mr. H. WALKER (Under-Secretary of State) said that full use was made of the normal machinery for consultation between departments. Mr. PAVITT then asked him if he was aware that there had been large increases recently which were excused by the pharmaceutical industry on the plea that the Ministry of Health had granted them. Was he aware of the ten per cent, increase in the price of insulin and was there some way in which the Minister could bring prices down? MR. WALKER said that the price of insulin was a matter for the Minister of Health and Mr. Pavitt would know of the voluntary price regulation scheme which was under consideration in the light of the Sainsbury Report. MR. R. CARR interposed and asked if the increase in price of insulin was "vetted and, therefore, correct?" MR. WALKER: Any price increases on pharmaceutical products prescribed pharmacists are subjected to the voluntary price regulation scheme which obliges the companies concerned to submit their price increases to the Minister of Health who had to be satisfied that the increases were necessary and justified and who also had to take into consideration the Government's prices policy.

### Reply to Chemist-Contractors

DAME IRENE WARD (on July 17) asked the Minister of Health what answer he had now given to the chemists who made representations to him on the difficulties experienced by their profession on the re-introduction of prescription charges.

MR. ROBINSON: I expect a reply to be sent in the next few days.

### Aspirin

MR. G. LLOYD asked the Minister of Health on July 17 whether in view of the findings of a group of scientists in the Scripps Clinic in California, he would order a study of the biological consequences of ingesting aspirin.

MR. ROBINSON: These reported findings are of scientific interest and will no doubt be followed up by research workers, but the possible side-effects of aspirin are well known to doctors and I do not consider there is need for a Government sponsored study.

## LEGAL REPORTS Toothbrush Prices "Freed"

THE Restrictive Practices Court has ordered that toothbrush manufacturers were not to be exempt from the provisions of the Resale Prices Act. decision was given on July 19 on the application of the Registrar of Restric-tive Trading Agreements. The order concerned personal brushes and related classes of goods. Mr. F. M. Ferris, for the Registrar, said that the original reference dealt with a variety of goods described as personal brushes. There were eight registered suppliers but only two entered an appearance; one subsequently "dropped out", and the re-maining supplier, Addis, Ltd., served a statement of case claiming exemption only for toothbrushes. The matter came before the court in December when a final order was made putting toothbrushes in a separate class. The court then made an order refusing exemption to all the other goods in the reference, Mr. Ferris added that in May the Registrar was told that Addis, Ltd. no longer wanted to continue with their claim for exemption from the Resale Prices Act.

### COMPANY NEWS

Previous year's figures in parentheses

G. B. KENT & SONS, LTD. — Group profit for 1967, £44,748 (£42,284); tax, £18,965 (£19,279); net profit £26,723 (£23,614).

CUSSONS GROUP, LTD.—Profit for year ended March 31, £836,203 (£715,860); taxation, £346,805 (£300,755); net profit, £429,484 (£415,105). Total dividend for year 6'8d. per share (6'6d.).

GNOME PHOTOGRAPHIC PRODUCTS, LTD.—Group profit for year ended May 31 rose to £201,366 (from £175,931), less tax, £85,285 (£70,150). Dividend proposed 35 per cent. (32½ per cent.).

HODDERS, LTD. — Trading profit for year ended March 31 was £207,618 (£211,045) after taking into account £42,712 (£42,704) for depreciation, directors' emoluments and other charges. [Corrected note].

STANLEY WESTON GROUP, LTD.—The recent "rights" share issue was taken up in respect of 98 per cent. of the issue. 407 applications for 811,000 excess shares were received and a ballot has been held for the 21,900 available shares. Those successful in the ballot were allotted 100 shares.

CRODA PREMIER, LTD. and BRITISH GLUES AND CHEMICALS, LTD.—Croda Premier, Ltd., have made a bid worth £4m. for British Glues and Chemicals Ltd. The offer,

in

in shares and convertible loan stock, values each BGC share at 10s. 7d. The board of British Glues and Chemicals have rejected the bid as inadequate

MACARTHYS PHARMACEUTICALS, LTD.—Group results in the past for years ended on April 30, have been made at the beginning of August, those of Savory & Moore, Ltd., which became a subsidiary of Macarthys in July 1967 have been made between September and November for years ended March 31. The results this year which will include those of Savory & Moore will be announced on September 12. Accordingly the conversion period for the 8 per cent. convertible unsecured loan stock will be September 28-October 28.

### **BUSINESS CHANGES**

CHEMIST BROKERS are removing to South Street, Dorking, Surrey, on August, 5. (telephone: Dorking 5933).

MR. J. C. PERT, M.P.S., has closed down his pharmacy at 53 West Nile Street, Glasgow, the business being transferred to C. Cockburn & Co., Ltd., 113 Hope Street, Glasgow.

MANOR DRUG CO., LTD., trading as Manor Pharmacy, opened at 103 Front Street, Arnold, Nottingham, on July 11. Mr. D. Heath, M.P.S. (a director), states that it is hoped to open other pharmacies which will trade under the same title.

### **APPOINTMENTS**

### Directors

WILKINSON SWORD (ACTON), LTD.—Mr. G. D. Middleton has been appointed a director.

BERK PHARMACEUTICALS, LTD. have appointed to the board Messrs. A. C. Benzie, M.P.S. (works director); K. J. Knight, F.P.S. (administration director) and W. Walton, B.Pharm., F.P.S. (U.K. marketing director). Mr. F. H. Choppin, A.R.C.S., becomes chairman as well as managing director and Mr. E. J. Philbrook, A.C.C.S., is secretary and financial controller. Four directors have resigned but remain directors of the parent company (B.C.A. Pharmaceuticals, Ltd.).

EUCRYL GROUP, LTD., have appointed to their main board Messrs. J. H. Thompson and G. S. Griffiths (from Thompson & Capper, Ltd.) and H. R. D. Jarman (from Pharmax, Ltd.). All three remain directors of the subsidiary companies and the Group board.

### **Executives**

CUTICURA LABORATORIES, LTD., have appointed Mr. B. C. O'Toole their area manager in Ulster. Mr. O'Toole's senior representative is Mr. R. Parker, and both gentlemen may be contacted at 27 Swanston Crescent, Glengormley, Newtown Abbey, Belfast, co. Antrim (telephone: Glengormley 2481).

MAWS PHARMACY SUPPLIES, LTD., have appointed the following brand managers: Messrs. A. J. Riley

(cosmetics and toiletries); C. Mitchell (pharmaceutical interests); A. L. S. Rich, (nursery and baby care products) and J. W. Reynolds (contract and hospital products). Mr. E. G. Langhorne replaces Mr. Reynolds as pharmaceutical buyer.

### Research

BRITISH INDUSTRIAL BIOLOGI-CAL RESEARCH ASSOCIATION have appointed Dr. M. Sharratt, M.Sc., M.B., Ch.B., Ph.D., chief toxicologist.

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD are appointing Mr. F. H. Jacob director of the Ministry's infestation control laboratory from July 31, in succession to Dr. I. Thomas.

### **DEATHS**

CLARK.—Recently, Mr. Arthur Henry Clark, M.P.S., 58 Tonbridge Road, Maidstone, Kent. Mr. Clark who qualified in 1913 was chairman of the Medway Branch of the Pharmaceutical Society in 1937. He was for many years a member of the Maidstone borough council during which time he was twice elected mayor, being honoured with the freedom of the borough three months ago.

DALE. — On July 23, Sir Henry Dale, O.M., G.B.E., F.R.S., aged ninety-three. Sir Henry was chairman of the Wellcome Trust 1936-1960. During 1904-1914 he was director of the Wellcome Physiological Research Laboratories where through his studies he discovered the important bodily functions of acetycholine and sympathomimetic amines. He later shared the Nobel prize for those studies. He was president of the British Association in Dundee (1947), president of the Royal Society of Medicine (1948-50), and president of the British Council (1950-55). He held over 20 honorary degrees and was an honourary member of over 20 scientific societies in different parts of the world including that of the Pharmaceutical Society in 1945. Earlier he had received the Harrison Memorial Medal (1932) and the Hanbury Gold Medal in 1944.

KIRBY.—On July 19, Major-General S. Woodburn Kirby chairman, H. & T. Kirby & Co., Ltd., Mildenhall, Suffolk, aged seventy-three.

MATTHEWS.—On May 7, Mr. Richard George Matthews, F.P.S., Brooke, Higher Warberry Road, Torquay, Devon. Mr. Matthews qualified in 1915.

READ.—On July 14, Mr. Ewart John Read, M.P.S., Nutgrove House, New Street, Painswick, Stroud, Glos., aged thirty-five. Mr. Read was a director of Beetham & Clark (Painswick), Ltd. He qualified in 1960.

SANDERSON.—On July 18, Mr. J. Sanderson, M.P.S., 17 Church Street, Mansfield Woodhouse, Notts. Mr. Sanderson was formerly in business at Leeming Street, Mansfield, Notts. He qualified in 1927.

WALE.—On July 9, Mr. George James Wale, M.P.S., 82 The Knoll, Castlebar Hill, Ealing, London, W.13. Mr. Wale qualified in 1931.

### **NEW PRODUCTS AND PACKS**

### PHARMACEUTICAL SPECIALITIES

Adjunctive shampoo is a newcomer to the range offered by Stafford-Miller, Ltd., 166 Great North Road, Hatfield, Herts, for the treatment of psoriasis. This new adjunctive treatment for psoriasis of the scalp contains special coal tar 5 per cent. and hexachlorophene, U.S.P., 1 per cent. in a clear gel foaming shampoo base. The company state that the shampoo is pleasant and easy to use and can be safely counter-prescribed for the treatment of dandruff and other scaly disorders of the scalp. Pack is a 60 gm. tube.

### **DENTAL SPECIALITIES**

Dental Disclosing Tablets.—Berk Pharmaceuticals, Ltd., Catteshall Lane, Godalming, Surrey, announce the introduction of Ceplac (pronounced "Seeplaque") dental disclosing tablets. The tablets contain erythrosine 2 per cent., a "harmless" vegetable dye which selectively stains food debris and bacterial plaque that forms at the gum margins, but is generally not removed by brushing because it is almost invisible. The tablets render the plaque visible and the teeth are brushed until all stain (and plaque) has been removed. Onc or two tablets should be used daily until an efficient brushing technique is perfected and thereafter one tablet may be used occasionally to check on progress. The pack is a carton of twenty-eight tablets.

### PRODUCTS FOR BABY

Plastic Feeder.—Maws Pharmacy Supplies, Ltd., Aldersgate House, New Barnet, Herts, have made available a Simpla feeding bottle made of polycarbonate, a clear, boilable, unbreakable lightweight plastic. The new feeder is identical in design and size to their Pyrex Simpla bottle. The cap can be inverted to act as a funnel and a sealing disc is supplied to enable mixed feeds to be carried in the bottle whilst travelling.

Folded, Concertina-style.—Robinson & Sons, Ltd., Wheat Bridge Mills, Chesterfield, have introduced Paddi Pleats. Like the roll, Paddi Pleats is a continuous length of disposable nappy material with soft cotton wool facing and absorbent backing, but instead of the material being rolled it is folded, concertina-style, making it easy to remove from the pack, easy to cut and easy to handle. Paddi Pleats are supplied in non-returnable, non-chargeable outers of thirty-six.

### PRODUCTS FOR DIABETICS

Low Calorie Lemonade.—Beecham Products (U.K.), Beecham House, Great West Road, Brentford, Middlesex, have introduced Hunts low calorie lemonade, containing less than one tenth of a calorie per fl. oz., to cater for those who need a sugar-free drink. Hunts low calorie lemonade which can be drunk straight, or used as a mixer, has been approved by the Medical Advisory Committee of the British Diabetic Association.

### COSMETICS AND TOILETRIES

Range Extended.—A 150-mil pack of splash Cologne has been added to the Lady Manhattan range by J. C. & J. Field, Ltd., 225 Bath Road, Slough, Bucks.

Pack and Formula Change.—A new formula has been adopted for Brylcreem which is now being supplied in a red lightweight shatterproof tub which the makers, Beecham Toiletry Division, Brentford, Middlesex, says is "easy for stock and ideal for display."

"easy for stock and ideal for display."

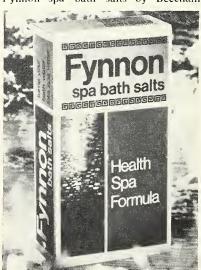
Men's Toiletries.—Dana Perfumes,
Ltd., 6 Paddington Street, London, W.1
are launching nationally Pullman — a
new range of men's toiletries including
Cologne for men, after shave lotion,



deodorant stick and tale. Claimed to be sophisticated and masculine, Pullman is said to symbolise "the age of graceful living, of smooth, luxury travel, of international espionage." Packs are in maroon, gold and white.

Medicated Make-up Products.— Innoxa, Ltd., 436 Essex Road, London, N.1, have brought out two medicated make-up preparations complementary to their Foundation 41. They are: Coverstick 41 (dark or light shade) in a wind-up case for applying over the blemishes and Cream Powder 41, an "all-in-one-make-up for difficult skins." Cream Powder 41 comes in a range of five shades: Golden Sable, Lovelight, Rose Sable, Sable Peach, Sun Sable.

Spa Bath Salts.—A new product, Fynnon spa bath salts by Beecham



Proprietary Medicines, St. Helens, Lancs, contains minerals found in the waters of British and Continental spas. The product has been formulated with water-softening and foaming properties. It has a citrus perfume and a colouring element to make the bath water an attractive shade of green. Among its ingredients are lithium and potassium sulphates, sodium lauryl sulphate, sodium carbonate and sodium bicarbonate. In consumer research the product is understood to have gained a high popularity. The pack is a tall green and blue carton with name prominently positioned next to an illustration of flowing water. The makers state that the market for all bath additives (salts, cubes, crystals and oils) is currently estimated to be worth £3 million annually.

### SUNDRIES

Natural Fur Eye-lashes.—Following the introduction of "First Flutter" lashes in real hair, last month, Eylure, Ltd., 8 Grosvenor Street, London, W.1, have now introduced "First Flutter" lashes in natural fur. The lashes are available in shades of black or brown.

Jewellery Dip Cleaner.—Couronne, Ltd., London, W.2, are distributing through Onward wholesalers the Couronne jewellery dip cleaner, described as acid-free, non-inflammable



and Government-tested. The bottle of 4 fl. oz. makes 16 fl. oz. of cleaning solution for use in cleaning jewellery, pearls, *objets d'art*, precious and semi-precious stones, coins, medals, spectacle frames, electric shavers, electronic instruments, etc. A display outer holds twelve.

Heat Retaining Hair Rollers.—Carmen Curler Co., Ltd., 9 George Street, London, W.I, have introduced a new range of Carmen heat-retaining hair rollers. The Carmen 20 and Carmen 16, contain twenty and sixteen rollers respectively for instant use and the Carmen 7+7, seven rollers for instant use and seven in reserve. The range is in a new shape case incorporating a carrying handle. Spare rollers will soon be available in an attractive point-of-sale bubble pack.

### TRADE NOTES

Change of Name.—The name of the product, formerly identified as Bontril is being changed to Bontid on September 1 by the makers, G. W. Carnrick Co., Ltd., 44 Highgate High Street, London, N.6.

Dose in an Elixir.—Bisolvon elixir, speciality of Boehringer Ingelheim, Ltd., Isleworth, Middlesex, contains 4 mgm. of N-cyclohexyl-N-methyl (2amino-3, 5-dibrom benzyl)-amine hydrochloride in each 5 mils [corrected note].

Submersible Teat. — The Suba-Seal Suba Cone silicone teat, sinks immediately in the sterilising fluid, thus ensuring that all surfaces are totally immersed, giving 100 per cent. sterilisation, say the makers William Freeman & Co., Ltd., Staincross, Barnsley,

Still Available.—Etophylate paediatric suppositories made by Delandale Laboratories, Ltd., 37 Old Dover Road, Canterbury, introduced on March 11, have not been withdrawn. The Q.P.L. Supplement, June 29, inadvertently carried a wrong reference to the product.

New Variety.—From July 29, Trufood Ltd., London Road, Guildford, Surrey, are adding a new variety "bacon and egg breakfast" to their range of "junior" foods. In the new variety, chopped bacon and pieces of scrambled egg are widely distributed through a tasty sauce.

Outer for Special Purpose.—Lilia-White (Sales), Ltd., Charford Mills, Birmingham 8, recently introduced an outer case containing three dozen Golden Babe 10's, each dozen being packed into an individual polythene bag sealed with a Kleen Klip. The outer is "flashed" with pack details. [Corrected note.]

New Branded Range of Cosmetics.-Helene Curtis, Ltd. (a member of the Eucryl Group), 7 Oakley Road, Southampton, Hants, have ampton, Hants, have signed up Glasgow-born singer "Lulu" to advise on a new range of Lulu branded hair beauty and cosmetic products to be manufactured and distributed by Helene Curtis, Ltd. The Lulu branding operation will be a separate entity to the company's current products.

Consolidating Production. — The manufacture of Lenthéric and Morny goods is to be consolidated with that of Yardley at their Basildon factory, where there is scope for future expansion of all three companies. The Perivale factory of Morny, Ltd., will close by the end of March 1969, and Lenthéric's factory at Tottenham by the end of November 1969. The marketing and selling sides of the companies will continue to operate independently.

What "Sherry" Means.—Following the conclusion without appeal of a court action between three British companies (Vine Products, Ltd., Whiteways Cyder Co., Ltd., and Jules Duval & Beaufoys, Ltd.) and the Sherry Shippers of Jerez, Spain, the parties have issued a guide to the trade in pre-paring labels, advertisements, etc. The statement defines the word The statement defines the word "sherry" as meaning "Wine from the Jerez district of Spain." Thus on all labels and in all publicity the word "sherry" by itself should be reserved exclusively for the wine of the Jerez district. The words "British sherry," "English sherry," "South African sherry," "Australian sherry," "Cyprus sherry" or "Empire sherry" should be sherry," "Austranan sherry" or "Empire sherry used for wines previously so described and similar wines made in Britain, South Africa, Australia or Cyprus. The descriptions should be used on labels without the insertion of other words such as "cream," "medium," "dry," such as "cream," "medium," "dry," etc., between the geographical adjective and the word "sherry."

Antiflatulent Preparation.—Midland Silicones, Ltd., Reading Bridge House, Reading, announce the availability of two new silicone antifoams under the titles MS Antifoam M and MS Antifoam emulsion M 30. The materials have undergone extensive evaluation and been subjected to independent toxicity testing. Silicone antifoams modify intestinal foam allowing it to be dissipated more easily. In addition they are able to prevent the formation of further foam. MS Antifoam M is normally recommended for preparations in tablet or gel form whilst MS Antifoam emulsion M 30 is recommended for preparations to be sup-plied as oil-in-water emulsions. The materials may be incorporated in veterinary medicines and used in pharmaceutical production processes to ensure foam suppression and improve the efficiency of filling ampoules or in other operations where foaming is a problem. The compounds may be sterilised if required. A technical data sheet is available from the company.

### **Bonus Offers**

CHELSPA, LTD., Glendouran, Keynshambury Road, Cheltenham. Modicare lozenges. Twenty invoiced as thirty-six. Until September 28.

ROBINSON & SONS, LTD., Wheat Bridge Mills, Chesterfield. Paddi Pleats. Twelve invoiced as eleven. Until August 24.

SCOTT & BOWNE, LTD., 50 Upper Brook Street, London, W.I. 4711 Flowon Ice Cologne. Twenty-six invoiced as twenty-four.

UNITED CHEMISTS ASSOCIATION, LTD., Ucal Works, Cheltenham. (Safety First) Iodised throat lozenges. Twelve invoiced as eleven. Until September 28.

KELDON, LTD., Wadsworth Road, Perivale, Middlesex. Eye Dew, Optrex and Optone products. Additional  $2\frac{1}{2}$  per cent. discount on £10 orders, 5 per cent, on £15 orders. Until September 30. Optrex lens cloth. Twenty-four invoiced as eighteen. Until October 31.

### Premium Offers

EYLURE, LTD., 8 Grosvenor Street, London, W.1. Eylure waterproof lashes together with Mend-a-Nail for 12s. 11d.

LILIA-WHITE (SALES), LTD., Charford Mills, Birmingham, 8. Golden Babe napkins. pence-off" voucher in pack redeemable against pence-ou voicher in pack redeemable against Elastoplast Airstrip. Till August 9. Vouchers are valid until November 30, 1968 (redemption open until January 31, 1969). Retailers may claim from Smith & Nephew, Ltd., Welwyn Garden City, Herts, sixpence plus ½d. per vou-cher to cover postage and handling. MAWS PHARMACY SUPPLIES, LTD., New Barnet, Herts. Banded pack of three Babysoft toilet soap and a free suction pad soap holder retailing at normal price for the soap.

### Competitions

DOROTHY GRAY, LTD., Hampden Park, East-bourne, Sussex. MGB sports car in "Christen a Lipstick" contest was won by Miss Jennifer a Lipstick contest was won by Miss Jennier Christy, Castle View, Clitheroe, whose suggestion for a "mystery" lip colour was "Red Spark." Two cars were offered as joint first prizes. The co-winner Mrs. J. Salthouse, Hawthorn Road, Streetly, Staffs, has elected Hawthorn Road, Streetty, Statts, has elected to take the cash equivalent. Her name was "Danger Signal." Prizes offered to the shops from which winning entrants obtained their entry forms were gained by Mr. C. Clegg, M.P.S., Clitheroe (MGB in his choice of white) and Boots, Ltd., Big Top, Birmingham. Since Boots' official policy prohibits employees from accepting prizes, comparable cash donations will be made to the company's benevolent fund, with a further £150 to be distributed among the staff immediately concerned.

GIBBS PROPRIETARIES, LTD. Three-year old Susan Wood from Leek, Staffs was crowned "Miss Pears 1968" by Sir William Hutchison at the Federation of British Artists, in London on July 23. She carried off the title and a cheque for £500, from a total of 77,000 contenders.

INTEC PROPRIETARIES, LTD., Crown House, Surrey, Endocil beauty contest for chemists' assistants. First prize of a B.E.A. Silver Wing assistants. First prize of a B.E.A. Silver Wing holiday for two in Majorca, won by Miss A. Bailey, Boots, Ltd., Newcastle-under-Lyne. Runners up were Miss E. Taylor, Sutton Coldfield and Miss A. Monat, Purley, Surrey, who each receive a lizard skin accessory set

Toni, Co., Syon Lane, Isleworth, Middlesex. Competition "Once upon a Toni" in Women's Own, August 10. Store from where winning entry is sent receiving £150. Mystery shoppers will hand out £5 where competition is seen promoted.

OPTREX WINDOW DISPLAY CONTEST, 259 Old Marylebone Road, London, N.W.1. B.E.A. Silver Wing holiday for two. Photo of Optrex window display to be entered before July 31.

### Discontinued

ANDRE PHILIPPE, LTD., 71 Gowan Avenue, London, S.W.6. No. 1 bubble-bath sachet.

IMPERIAL CHEMICAL INDUSTRIES, LTD., pharmaceuticals division, Alderley House, Alderley Park, Macclesfield, Ches, Inderal injection 5 mgm. in 5-mil ampoules.

SMITH KLINE & FRENCH LABORATORIES, LTD., Welwyn Garden City, Herts. Tolnate; 20-mgm. tablets. Containers of 500.

### New Metric Sizes

NORGINE, LTD., 26 Bedford Row, London, W.C.I. Normacol standard and Normacol special granules. Now in  $2\frac{1}{2}$  kilo dispensing packs, tax free Each tin contains a supply of gummed direction labels to reduce pharmacist's work in dispensing from bulk packs. "Over the counter" (5 lb.) tax-paid pack is being retained in production.

Trade Shows
BRONNLEY & CO., LTD., 10 Conduit
Street, London, W.1. CROYDON, Greyhound
hotel, July 29 to August 2.

GOYA INTERNATIONAL, LTD., 161 New Bond Street, London, W.1. Croydon, Greyhound hotel, July 29 to August 2.

J. GROSSMITH & SON, LTD., 41 Piccadilly, London, W.1. Croydon, Greyhound hotel, July 29 to August 2.

NORMAN HARTNELL, LTD., 26 Bruton

NORMAN HARTNELL, LTD., 26 Bruton Street, London, W.I. Croydon, Greyhound hotel, July 29 to August 2.

MORNY, LTD., 201 Regent Street, London, W.I. Croydon, Greyhound hotel, July 29 to August 2.

SHULTON (GREAT BRITAIN), LTD., 100 Brompton Road, London, S.W.3, Croydon, Greyhound hotel, July 29 to August 2.

JEAN SORELLE, LTD., 76 Great Portland Street, London, W.I. Croydon, Greyhound hotel, July 29 to August 2.

### **MACHINERY & PLANT**

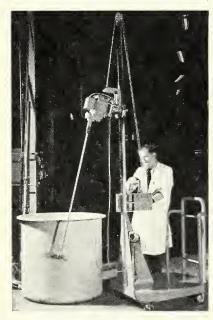
Improved Tablet Coating.—A transportable tablet-coating system that uses an airless spraying technique has been



Hydra-spray tablet-coating system of Graco Geneva, S.A., Geneva, Switzerland, used with tablet tumbling equipment.

developed by Graco Geneva, S.A., Rue Butine 11, Geneva, Switzerland. Designed for use with tablet-tumbling equipment, the system may be used to apply sugar, film or shellac coatings to a variety of pharmaceutical and confectionery products.

Transportable Stirrer. — Originally designed for mixing pharmaceutical products prior to packaging, a trans-portable stainless steel stirrer now available from A.P.V.-Kestner, Ltd.,



Greenhithe, Kent, has many other applications. Its propeller and 8 ft. shaft are in high-molybdenum stainless steel, and the whole unit is mounted on a small wheeled trolley with a working platform to accommodate the operator.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

### For Benevolent Fund

SIR,—May I, through the courtesy of your columns, inform all members of the Plymouth School of Pharmacy Old Students' Association that the sum of £14 4s. ld. has been forwarded to the Benevolent Fund of the Pharmaceuti-MERVYN MADGE, cal Society.

St. Budeaux, Plymouth

### **Absurd Inequality**

SIR,—Correspondence published in recent issues of the C, & D, includes complaints concerning varying aspects of the conditions caused by the reintroduction of the prescription charges. The most absurd is I think the acceptance of  $\frac{1}{2}$  per cent, increase in oncost to offset extra burden entailed in their collection. How stupid to expect a man with a low oncost to be satisfied with ½ per cent, of a low figure whilst his colleague with a high oncost reaps a far larger amount. These payments should be added in whole numbers to the professional fee. They have nothing to do with our trading activities with to do Williams the Government.

F. BARRY FAWCETT,

Value Ferry,

New Ferry,

### **Paper Sorters**

SIR,—Is it not high time we ceased operating as paper sorters to the Ministry of Health's statistical department and limited our sorting to the amount necessary to facilitate pricing and payment?-exempt and paid scripts in separate bundles of 100 with special fee items at the top of the bundles. The re-introduction of charges, has, overnight, doubled the number of divisions into which we have to arrange our scripts. Doctor order, white forms, green forms, yellow forms, orange forms, buff forms subdivided into various Executive Councils' forms . . . all this has nothing to do with pricing. No doubt it facilitates the collection of statistics but if the Minister requires statistics it is up to his department to juggle with pieces of paper and leave us free to get on with our own job of dispensing. I feel this multiple sorting is an unjustifiable and time wasting imposition to which we should call an immediate halt.

R. E. R. LING,
North Walsham

### "The Money Programme"

SIR, — Commenting on Inpharm's policy of giving its members a discount of  $7\frac{1}{2}$  per cent. on non-ethicals, Mr. David Savory said in The Money Programme on B.B.C. 2 (July 18) that there was no difference between this discount and a normal dividend. "If he the chemist) puts up that amount of moncy (£600) in a public company," said Mr. Savory," he would expect to get a dividend from that." He then went on to say that no dividend would be expected from Inpharm but only a discount on purchases and "he would

probably end up in the same position." First of all, I should like to point out that a member of Inpharm is eligible for both discounts and dividends. When his annual purchases include non-ethicals to the value of £4.000 (which is below the national average), he would receive from Inpharm £300 in discounts alone, or 50 per cent. on capital invested. Are there really any public companies which offer a similar return? H. W. Tomski, Chairman,

INPHARM, LTD., 388 Seven Sisters Road, London, N.4

SIR,—The B.B.C. 2 feature "The Money Programme," screened on July 18, was on a subject of interest to all pharmacists, and of particular importance to all independent retailers in the profession. It was all the more to be regretted, therefore, that the interviewer's comments about Unichem were inaccurate and misleading. Unichem, approached by the B.B.C. at very short notice, was only too willing to supply all the factual information required, and it is unfortunate that the B.B.C. did not avail themselves of this opportunity.

G. J. WHITE, Managing Director, UNICHEM, LTD., Morden, Surrey

### Mammoth Tribute

SIR,-Whilst renewing my subscription I feel that I must take this chance of thanking you for the really mam-moth efforts you have gone to during the past year in keeping us advised on price changes. During my time in phar-macy (approaching thirty years) I cannot recall a period of greater changes, and hope I shall never see another to exceed this last year's. But our way has been made much smoother, and the cost of my subscription saved many times, by your up-to-date lists. Congratulations to all concerned.

J. E. HOPKINSON, Matlock, Derbys The

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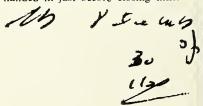
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### Address for Eucalyptus Seedlings

MR. R. V. Owen, who recently offered eucalyptus and valerian seed-lings (C. & D., June 29, p. 292), states that his address is now Brownlow Park, Ellesmere, Salop. On receipt of 2s. 6d. for packing, postage, etc. he will send six conditions to applications. will send six seedlings to applications received before August 5.

### PRESCRIPTION POSER

THE prescription illustrated below was handed in just before closing time.





For Retailer, Wholesaler and Manufacturer
ESTABLISHED 1859

Published weekly at 28 Essex Street, Strand, London, W.C.2 TELEPHONE: 01-353 6565

### A Plan for Discussion

An important factor for pharmacy in the Minister of Health's proposals for reorganising the administration of the National Health Service (see p. 72) is that the pharmaceutical services would no longer be considered in isolation. Like all other services they would come under the jurisdiction of "area boards" which would take over the functions of Executive Councils, Regional Hospital Boards, Boards of Governors, Hospital Management Committees and local health authorities. It is with such area boards — about forty or fifty are suggested — that pharmacists in general practice would be "in contract." Otherwise they should notice little change: professional and service committee structure would remain (though based on new areas) and there would be a body corresponding to the Joint Pricing Committee. However, the pharmacist's practice environment might be considerably altered.

The boards would be expected to give more thought than is at present possible to the orderly development of the general medical services in relation to the other services and to "encourage co-operation between their other services and those provided by dentists, opticians and pharmacists." Thus it can be foreseen that with their authority to plan comprehensively the boards might give ready support to some form of planned pharmaceutical service to ensure that the whole of their areas were adequately catered for. In the Minister's words, "The paramount requirement is that all the different kinds of care and treatment an individual may need at different times, whether separately or in combination, should be readily available to him."

In terms of representation, the general practice pharmacist would lose out under the Minister's proposals. At present he has two representatives, appointed by Pharmaceutical Committees, on each Executive Council. Area boards would comprise some fifteen members and although "some members with broad professional knowledge of medicine and related services would be required," the suggestion is that "it would not be desirable for these to represent special interests." The boards' function would, however, be directive and clearly distinguished from that of the officers carrying out day-today running of the service. A few standing committees would be appointed, covering for example planning and organisation for the whole service, and they would have "wider professional participation" and would consult outside persons when particular professional subjects were being considered.

By publishing his proposals as a Green Paper, the

Minister has taken an unusual step — in effect he is throwing open to public discussion the type of draft, usually only circulated to "interested parties," that precedes publication of a White Paper outlining Government intention. Although certain to be changed in the light of such discussion before legislation to give it effect is contemplated, the paper is likely to provide a basis for future Health Service organisation. It will be up to pharmacy's spokesmen, locally through the existing machinery and nationally, to ensure that the profession takes its rightful place in the new structure.

### Towards The Statute Book

CONTINUING on its course, the Medicines Bill has now achieved the Committee Stage in the House of Lords (see p. 73) and there still remains the Report stage and Third Reading which indicates that unless some extremely unusual arrangements are made the Royal Assent cannot be given before the middle of October. The House of Commons is to begin the summer recess on July 26 and will not return for business until October 14. In accordance with recent practice the present Parliamentary Session will be continued for some few days after that date in order to complete any outstanding work. The House of Lords is to continue to sit for a longer period and arrangements have been made for the House to rise on August 1 and return for two days on October 7 and 8 in order to deal with the report stage of the Transport Bill, the House is to then adjourn until the end of that week and resume again on October 14. The likelihood is that the present Parliamentary Session will be prolonged for a further fortnight.

That the Medicines Bill is being dealt with urgently is reflected in the progress of the Committee Stage of the Bill in the House of Lords which considered it in its entirety in two and a half hours. In that period the members dealt with amendments occupying no less than 37 pages of text.

From the point of view of the Pharmaceutical Society, the Committee Stage could be considered to have passed quite satisfactorily. Lord Coleraine a director of Boots Pure Drug Co., Ltd., moved an amendment, at the Society's request, designed to ensure that pharmacists would be able to obtain, without difficulty, licences enabling them to carry out small-scale manufacture of many traditional items. However the Government indicated a willingness to use the current content of the Bill to make available "ready made licences" issued more or less on demand to persons of the right qualifications. So Lord Coleraine did not press his amendment. The Society had also asked Lord Coleraine to seek another amendment of the Bill designed to ensure that exemptions in clause 48 and the exemptions granted in respect of nurses were subject to some limitation if only the continuous oversight by the Minister. For the Government similar amendments had been proposed, and it was agreed that the matter had best be discussed privately before the Report Stage if it was found that the Government's amendments did not cover what Lord Coleraine was seeking.

During debate it became apparent that the herbalists through their spokesmen were still objecting vehemently to the Pharmaceutical Society having the responsibility of extensive enforcing powers under the Bill. Several arguments were advanced similar to those made in the House of Commons during the earlier stages of the Bill when the Minister of Health undertook to look at the problem again. It was reported that his investigations were not yet complete and the matter was left until the Report Stage of the Bill which is likely to be arranged for July 30. It is evident that there are a number of points that might still be discussed at some length and that the final stages of the Bill may not necessarily be mere formalities. However the Medicines Bill is a Government measure and that in itself should ensure its passage to the Statute book.

### Making an Insurance Claim

It is easy to think that all one's insurances are adequate. Nevertheless, the recent widespread floods have shown how policies really can be put to the test.

Unfortunately, apart from risks not being covered, there is an added problem, in that *some* insurance companies try to settle a claim for as little as possible, only raising an offer after a fairly prolonged argument. That is a pity. They would do well to heed the words of an eminent insurance consultant who admitted recently that many claims contained some elements of doubt, adding "but to eliminate them would cost more in the end than one could save, and the bad-feeling created would be widespread and long-lasting."

When it is clear that a claim has to be made, the policy holders should recognise that the immediate step is to protect the interests of the insurers. A maxim sometimes suggested in such circumstances is that the policy holder should act with the same prudence as if uninsured and he had to meet the full cost of the claim from his own resources.

-If it looks as though a claim might arise for personal injury or damage to property resulting from an accident, liability should not be admitted, whatever the circumstances. To do so would enable the insurers to void the policy if they wished. All such claims should be passed straight on to the insurers.

Obviously, in many cases, temporary repairs have to be put in hand after damage is discovered, so as to prevent further loss. Permanent and more expensive repairs should not, however, be carried out until the insurers have been consulted.

Where the claim is at all serious, insurers will arrange for an on-the-spot investigation to be made by one of their own staff or, more likely, by an independent firm of adjusters.

When adjusters are appointed, it does not necessarily mean that their task is to settle the claim for the lowest possible amount. In theory, although paid by the insurers, adjusters should be impartial, and they should be ready to point out clauses in a policy which give greater benefit than might be imagined. In addition, they might be able to help with accountancy problems in the case of a claim resulting from serious damage.

One of the tasks of an adjuster is to check that there really is a claim under the policy. Often, of course, that may be quite obvious. Nevertheless, in insurance, there are a considerable number of "borderline cases."

Some policy holders feel, especially in the case of a large claim, that they would like a professional on their side, to claim the maximum amount to which they are entitled and to discuss problems with the adjuster in his own technical language.

It is assessors who carry out that kind of service. Some are only too anxious to sell themselves: there is a story, probably apocryphal, that they have been known to be at the site of a fire, ready to sign up a client, even before the arrival of the fire brigade!

Some assessors can be of considerable value. Nevertheless, care is needed in selecting the right company, and it is important to obtain at the outset a good idea of the fee which an assessor will charge. Employing an assessor is a completely private arrangement, although it might be possible to include some accountants' fees in a claim, insurers will not pay the fees of assessors who are employed to help with the negotiations.

### ON THE SIDELINES

\* A LINK FOR FIFTY YEARS \*

"To strengthen the chain of good fellowship in the factories of Robinson & Sons, Ltd.," is the declared purpose of the Chesterfield-based company's aptly named house magazine, The Link, which celebrates fifty years of publication with the latest issue. Founded during the 1914-18 war at a time when few house organs were in existence, The Link was the idea of the then works manager, Mr. A. E. Webster, who became its first Editor — a position he held until his death in 1936. The magazine's history is recalled in this 201st. issue by Mr. Philip Robinson ("the real founder of The Link," now aged eighty-five) and four pages of the first issue are reproduced showing how it set the pattern for future years. Mr. Webster, it is recorded, refused to allow the publication to be an adjunct of the sales department, technical and business items being discouraged. Instead, concentration is on social activities and staff news, with plenty of photographs. The Link enters its fifty-first year under the guidance of a new editor, Mr. C. S. Jackson, who recently retired as manager of the company's letterpress department. Among his first tasks has been to announce a price increase to sixpence — the cost has been twopence ever since the second issue - but it seems likely that readers will judge the outlay money well spent.

### **NEW BOOKS**

Immunochemistry and the Biosynthesis of Antibodies
F. HAUROWITZ, M.D., D.SC. John Wiley & Sons, Ltd.,
Baffins Lane, Chichester, Sussex. 9 x 6 in. Pp. xvii +
301, 103s.

INTENDED as an introduction to basic immunochemistry from a theoretical standpoint, this book is derived from a course offered to graduate students in biological sciences (the author is a professor at Indiana University, U.S.A.). It introduces the reader to the chemistry of antigens, antibodies and their interactions. Theories of antibody production are discussed in some detail. An extensive bibliography has over 1,000 references, most to work published between 1960 and 1966.

Antibiotic and Chemotherapy

L. P. GARROD, M.D., HON. LL.D., F.R.C.P. and F. O'GRADY, M.D., M.SC., M.C.PATH. E. & S. Livingstone, Ltd., 15 Teviot Place, Edinburgh.  $8\frac{3}{4}$  x  $5\frac{1}{2}$  in. Pp. viii + 475. 50s. (second edition).

This second edition of a work that received wide acclaim when first published in 1963 has, in Professor O'Grady, a new joint author as a result of the tragic death of Professor Mary Barber in 1965. Forty-four new compounds are referred to and despite omission of earlier or more familiar work, the book has been extended by nearly 100 pages. The first twelve chapters deal with groups of compounds, giving for each information on the history, chemistry, activity, pharmacology and clinical uses. There follows a chapter on drug resistance. Second part of the book is devoted to the principles of treatment, classified according to disease or site. Final chapter describes and

illustrates the principles and techniques of laboratory tests for bacterial sensitivity, antibacterial activity and antibiotic assay (it is claimed that such a compendium is to be found nowhere else).

British Encyclopaedia of Medical Practice Pharmacopoeia

Butterworth & Co. (Publishers), Ltd., 88 Kingsway, London, W.C.2.  $9\frac{3}{4}$  x 7 in. Pp. viii + 918 + 50 (condition index). 115s.

Now in its fourth edition, the pharmacopoeia lists, in alphabetical order, proprietary prescription products, giving for each, in monograph style, description or composition,

pharmacology, indications and contraindications, side effects or toxicity, dosage, method of administration and presentation. Final section is a "condition index" referring to conditions for which a manufacturer recommends his product. Though such a volume may provide a doctor with a convenient way of storing vital information on proprietary products, it suffers from the disadvantage of being well out of date before publication. In this fourth edition, for example, products introduced or deleted from manufacturers' lists from mid-1967 are not accounted for, making reference to some other source of information nccessary.

## A CENTURY OF CONTROLS

Anniversary of the 1868 Pharmacy Act

HUNDRED years ago, July 31, 1868, Parliament passed the Pharmacy Act, the first Act to control the practice of pharmacy and the sale of poisons. There had been a Pharmacy Act in 1852, but it merely restricted the title of pharmaceutical chemist, and did not interfere with the practice of pharmacy by unqualified and unregistered persons. The Pharmacy Act 1868, has shaped British legislation in the field of pharmacy and poisons for a century, and it is only with the passing of the Medicines Act which is expected later this year that the idea of controlling drugs ceases to be tied irrevocably to poisons and that drugs come to be officially classified as medicines.

### Pattern for the Commonwealth

Many people consider that the practice of pharmacy in Great Britain has itself suffered through the linking of pharmacy with poisons, and that it was a step forward when, in 1954, a Pharmacy Act was placed on the Statute Book that was entirely unconnected with the sale of poisons. The 1868 Act further shaped legislation in many Commonwealth countries and was the pattern for the Pharmacy Act (Ireland) 1875, and the Poisons Act (Ireland), 1870, from the shackles of which in the Republic of Ireland, pharmacists have only recently been liberated.

The Act was designed for the safety of the public, and in its preamble states that persons keeping open shop for the retailing, dispensing or compounding of poisons, and persons known as chemists and druggists, should possess a competent practical knowledge of their business. The term "open shop" has lingered on for a long time.

The Act provided that only persons passing the examination of pharmaceutical chemist (the "major") or chemist and druggist (the "minor") should be registered and allowed to keep open shop or allowed to use titles such as pharmaceutical chemist, chemist and druggist or pharmacist. That mention of "pharmacist" is the first in a British Act of Parliament. Those persons already carrying on business as proprietors were registered automatically, and assistants with three years experience at least were allowed to sit for a modified examination, the passing of which entitled them to go on to the Register. That personal aspect of the practice of pharmacy was real, and it took a House of Lords case (Pharmaceutical Society v. London and Provincial Supply Association) to replace the personal concept by the idea that bodies corporate could trade as

The 1868 Act contains a list of poisons in a Schedule divided into two parts: Part I, which required a signature in a book; and Part II of substances regarded as less dangerous. In the light of modern knowledge and developments it is strange to note the opium and preparations of opium appear in Part II, because the Act was passed fifty years before the Dangerous Drugs Act brought home to people the dangers of addiction. The number of items in the Schedule was small (ten classic poisons in Part I, and a further five in Part II, all being of a well known and relatively simple type, such as arsenic, cyanides, corrosive sub-

pharmacists—a procedure enshrined in the 1908 Act.

limate and oxalie acid). The Schedule could be amended by the Council of the Pharmaceutical Society, subject to approval of the Privy Council—a power lost to a Statutory Poisons Board under the 1933 Act. It is significant that many of the powers of the Council are being whittled away, as the Medicines Bill is placing the power of registration of premises in the hands of the Ministry instead of the Society. Other provisions of pharmacy law we take for granted today were included with the 1868 Act, such as the conduct of the Society, the preparation of by-laws, publication of the Register and the constitution of the Council.

The Act contained a provision, still in force today, that the Registrar of Deaths in Great Britain must send to the Registrar of the Pharmacy Act details of deaths of pharmaceutical chemists or chemists and druggists notified to him. A curious restriction not often realised today is that the title pharmacist was restricted to pharmaceutical chemists who also were allowed the title pharmaceutist, and that the chemist and druggist was only allowed so to call himself. The description "pharmacist", which is now regarded by the Pharmaceutical Society as the correct definition of all those on the Register, was not extended to cover chemists and druggists until the Poisons and Pharmacy Act of 1908. It is, of course, in much more recent times, i.e. under the Pharmacy Act of 1954, that the two examinations were abolished and all pharmacists made to qualify for entry on the Register as pharmaceutical chemists. Another restriction was that the Council of the Society should not contain more than seven members who were not registered as pharmaceutical chemists, thus limiting the power at that time of the chemists and druggists. Although the British Pharmacopoeia is of persuasive and not absolute authority under the Food and Drugs Act, the 1868 Pharmacy Act provided that all pharmaceutical chemists and chemists and druggists must compound medicines of the B.P. in accordance with its formularies.

### Labelling of Poisons

The business of legally qualified apothecaries and members of the Royal College of Veterinary Surgeons was protected, as was the making of and dealing in "patent medicines" and wholesale dealing in poisons. Medical practitioners generally were not protected, and they had to be given a legal right to dispense poisons by later legislation. Labelling provisions were also included, the word "poison" and the name and address of a seller having to appear on the box, bottle, vessel, label or cover in which any scheduled poison was contained.

It is often thought that there was no power to remove a pharmacist from the register until the Statutory Committee was constituted under the Pharmacy and Poisons Act, 1933. In fact, the 1933 Act merely placed the power on a wider basis, allowing for a definite procedure, with the Society having the right to nominate members of the Committee. The 1868 Act gave power to the Privy Council to make a direction that the name of any person convicted of an offence against the Act, which in their opinion

rendered him unsatisfactory to be on the Register, should be erased from the Register. It is strange to note that the offence of keeping open shop when unqualified, or breaking any of the regulations in relation to the selling of poisons, was not a criminal offence dealt with in the magistrates' court, as it is today, but gave rise to a penalty which the Society recovered by civil procedure in the County Court. It makes one wonder if pharmacists have advanced in professional standing when, in the past 100 years, they have changed from the position of offenders against their own Society, with penalties, to a position of being public criminals.

Although the 1868 Act is old-fashioned, and in many ways out of date under modern conditions, it served as the pattern for the control of pharmacy and drugs until the Pharmacy and Poisons Act, 1933, and even that Act, which is currently in force, owes much to the draftsmen

## Health Service in 1967

### PRESCRIPTION COSTS RISE 5.7 PER CENT.

MAKING the most of resources. improving organisation and promoting cost consciousness were the dominant considerations in a year which saw progress on almost every front in the health and welfare service, says the annual report of the Ministry of Health for the year 1967 (H.M. Stationery Office, price 23s.).

### **Prescription Statistics**

The number of prescriptions dis-pensed in England and Wales during the year rose by 3.5 per cent. compared with 1966 to a total of 271,206,000 (against 261,954,000 in 1966). Total cost was up by 5.7 per cent. to £146 201m. (£138 369m.). Corresponding percentage increases in 1966 compared with 1965 were 7.2 and 9.8 respectively. Total net ingredient cost was £103·67m. (£95·817m.) and average total cost per prescription 129·4d. (126·8d.). The report says that the increase in average net ingredient cost per prescription has remained relatively small over the past two or three years and once again it attributes part of the reason to the continuing fall in the ingredient cost of prescriptions for tetracyclines. Largest increases in the number of prescriptions were recorded for antipyretic anal-(non-barbiturate), gesics. hypnotics tranquillisers, anti-depressants and penicillins. Of the 271m, prescriptions dispensed, 61.5m, were for non-proprietary preparations, dispensed at the net ingredient cost of £6.6m., and 200-8m. were for proprietary preparations costing £91-2m. The remaining 8.9m. prescriptions were for dressings, appliances, etc., and cost £4.3m.

Under remuneration of chemists it

is recalled that the results of the 1966 inquiry into dispensing costs resulted in the agreed cut in the rate of on-cost from 13 to 11 per cent. from July 1, 1967, and to  $10\frac{1}{2}$  per cent. from October 1. Supplementary payments totalling £24,781 were made pharmacies which dispensed small number of prescriptions during 1966 and were considered to have provided essential pharmaceutical services. mainly in rural areas.

The review of the Voluntary Price Regulation Scheme on proprietary products resulted directly or indirectly, it is claimed, in price reduction amounting to approximately £0.6m, out of a total price reduction of over £1m.

Fourteen new health centres were

opened during the year bringing the total to forty-five (not counting those in operation before 1948); forty were being built at the end of the year and plans for a further fifty-four had been approved.

In Wales the number of prescriptions dispensed was 19,346,111 (18,603,482 in 1966), the average cost per prescription being 133d. (132d.). Two new health centres were opened bringing the total to nine (including five pre-1948 centres), four were under construction and plans for seven more had been approved.

### Fewer Service Committee Cases

The number of service committee cases in the pharmaceutical services fell from 153 in 1966 to seventy-five in 1967. In sixty-one cases a breach was found and in the remaining fourteen no breach.

Estimated expenditure on health and welfare services in England and Wales in 1967-68 is put at £1,493,756,000 against £1,357,894,638 in 1966-67. Analysis of the figures in £ millions is as follows (1966-67 costs in parentheses):— Central administration 8.26 (7·18); hospital services, current 740·09 (685.22), capital 98.15 (80.16); Executive Councils adminstration 9:51 (8:58); general medical services 115.42 (97.29); pharmaceutical services 155.65 (141.32); general dental services 71.99 (70.22); supplementary ophthalmic services 21.15 (20.06); payments by patients less 2013 (less 1966); welfare foods service 43.41 (40.08); other central government services 16.68 (16.01); local health authority services 13.9-13. (125.92); local welfare services 74.32 (65<sup>.</sup>85).

### Hospital Service

Total net revenue expenditure by hospital authorities amounted 1966-67 £675,341,436 in against £614,682,004 in 1965-66. About threequarters of the increase was accounted for by increases in salaries and wages (up by £25m.), in prices of commodities and services (£9m.) and by selective employment tax (£13.5m.). Drugs cost £19.57m. (£17.75m.) and dressings £4.48m. (£4.14m.).

During 1966-67 £75.3m. was spent

on hospital building against £65.6m. in 1965-66 and an estimate of £91m. for 1967-68. New work to the value of £108m. was started. Nearly three

CHEMIST CONTRACTORS' ESTABLISHMENTS: SIZE GROUP DISTRIBUTION IN 1966

SIZE GROUP	
(ANNUAL NUMBER OF	NUMBER OF
N.H.S. PRESCRIPTIONS)	ESTABLISHMENTS
Less than 6,000	661
6,000 - 11,999	2,399
12,000 - 17,999	2,895
18,000 - 23,999	2,224
24,000 - 29,999	1,446
30,000 - 35,999	931
36,000 - 41,999	568
42,000 - 47,999	330
48,000 - 53,999	196
54.000 - 59,999	143
60,000 - 71,999	130
72,000 - 83,999	47
84,000 - 95,999	21
96,000 -107,999	16
108,000 -119,999	12
120,000 and over	22
Total	12,041

Includes only those chemists' establishments which dispensed prescriptions and were open for the whole year. Establishments which changed ownership during the year are included.

Pharmaceutical Services Expenditure, 1966–67		
	£	£
1. Total gross payments to contractors	. 136,622,961	
Less net repayment of special interim payments	1,442,333 <sup>1</sup>	
Less charges to patients	. 44	
·		135,180,584
Estimated breakdown of 1:—		
(i) Cost of drugs and allowance for containers	. 94,583,000	
(ii) On-cost allowance	. 12,962,000	
(iii) Professional fees and rota payments	. 29,078,000	
	136,623,000	
2. Medical practitioners:—		
(i) Payments	. 5,880,273	
(ii) Superannuation, etc.—Executive Councils' share	. 259,112	
		6,139,385
3. Other payments		1,224
		141,321,193

<sup>&</sup>lt;sup>2</sup> Special interim payments were discontinued from May 1, 1966, and payments outstanding were

times as much building was approved in 1967 as in 1966.

The number of pharmacists employed in the hospital' service at September 30, 1967, was 1,439 (in whole-time equivalents) against 1,444 in 1966. Pharmacy technicians numbered 1,455 compared with 1,384.

In an outline of the work of the Committee on Safety of Drugs in 1967 (the committee's report is not yet available) it is stated that the com-

mittee continued to have the closest co-operation of the pharmaceutical industry. However, on the committee's recommendation, the Ministers advised pharmacists, dispensing doctors and hospitals against the use of two varieties of an unidentified drug in capsule from. The Ministers were subsequently advised that distribution had ceased. During the year 765 new submissions were received, against 908 in 1966 and 874 in 1965. In

addition, 123 submissions remained from the previous year. The committee approved 698 submissions, and did not approve thirty-six; seventy were withdrawn or not proceded with, and eighty-four were in hand (forty-three having been referred back to the applicant). A comprehensive information service on adverse reactions to drugs generally was introduced for doctors and dentists, and additional computer facilities provided.

	1	NUMBER OF TOTAL NET PRESCRIPTIONS INGREDIENT COST			OST	AVERAGE NET INGREDIENT COST PER PRESCRIPTION			
	1965	1966	1967	1965	1966	1967	1965	1966	1967
BROAD THERAPEUTIC GROUP		million	3		£ million		.,	pence	
All groups	244.3	262-0	271 · 2	86 · 4	95.8	102 · 1	85	88	90
Preparations acting on the alimentary system		22.7	23.2	4.6	5 • 1	5.5	51	53	57
Antacids and antispasmodics		11.0	11.3	2.5	2.7	2.8	58	58	60
Bitters, tonics and gastro-intestinal sedatives taxatives and purgatives, evacuant enemas and supposi-		5.6	5.3	0.8	0.9	1.0	36	38	44
tories, other preparations acting locally on the rectur									
and anti-infective agents acting locally on the gastro-									
intestinal tract	5.7	6.2	6.6	1.3	1.5	1.7	53	60	64
Preparations acting on the cardiovascular system and diuretics		19.3	20 · 4	11.1	13.0	14.3	148	162	169
Preparations acting on the heart		4·8 5·2	5·2 5·7	0·9 2·9	1·3 3·6	1·5 4·1	48 153	64 163	69 172
Diuretics		4.0	4.3	5.0	5.7	6.1	312	338	344
Vasodilators, vasoconstrictors	1 2 2	4.8	4.8	1.9	2.1	2.2	101	106	109
Anticoagulants and other preparations acting on the		1							
vascular system		0.4	0.5	0.3	0.4	0.5	210	237	255
Preparations acting on the lower respiratory system		29·7 21·6	29·1 20·7	5·5 2·5	6·3 2·9	6·5 2·9	50 31	51 32	54 33
Expectorants and cough suppressants Preparations relaxing bronchial spasm	1	8.0	8.3	3.0	3.4	3.6	96	101	103
Other preparations acting locally on the lower respiratory							70		100
tract, respiratory stimulants and others	0.1	0.1	0.1	0.1	0.1	0.1	248	200	284
Preparations acting on the nervous system		69.9	75.0	17.9	19-2	22.2	64	66	71
Addictive analgesics	1 40 -	1.0	1·0 20·4	0·2 4·0	0·2 3·6	0·2 3·9	47	47	55
Antipyretic analgesics		19·1 16·8	16.1	2.0	2.0	1.9	52 27	45 29	45 29
Hypnotics (barbiturate)		3.5	4.8	0.4	0.8	1.3	35	54	66
Tranquilisers	1 40 0	12.5	14.7	4.8	5.9	7.1	107	113	116
Antidepressants		3.9	4.9	2.8	3.1	3.8	192	191	187
Stimulants and appetite suppressants		5.2	4.8	1.5	1.5	1.5	69	68	76
Anticonvulsants, preparations used in Parkinsonism,	1	2.0	2.3	1.0	1.0	1.1	113	114	113
cholinergic and neuro-muscular-blocking drugs Local anaesthetics and counter-irritants		4.5	4.7	0.7	0.7	0.7	34	35	34
Anti-emetics (other than preparations of unadmixed		'	''						"
hyoscine salts)	1.1	1.2	1.3	0.5	0.5	0.6	103	102	108
Preparations acting on the genito-urinary system		0.8	0.8	0.3	0.3	0.3	85	94	99
Preparations acting systemically on infections		36·0 14·6	36·4 15·6	22·4 7·7	23·1 8·2	21·9 8·6	165 141	154 135	144 132
Penicillins		12.6	11.9	9.6	9.0	6.8	207	171	137
Other antibiotics		3.3	3.6	2.1	2.5	2.9	175	185	195
Sulphonamides		3.4	3.0	0.8	0.8	0.8	57	58	65
Other anti-infective agents		2.1	2.3	2.2	2.6	2.8	265	285	285
Preparations affecting metabolism		9.5	9.6	5 • 4	5.8	6.0	144	146	149 191
Corticosteroids for systemic use Oestrogen-progestogen combinations		2·2 0·7	2·2 0·7	1·7 0·3	1·8 0·4	1·8 0·4	208 127	193 125	129
Oestrogen-progestogen combinations Other sex hormone preparations		2.4	2.4	0.9	0.9	0.9	90	93	90
Insulin and oral hypoglycaemics	1	1.4	1.5	1.8	2.0	2.0	335	336	332
Thyroid, anti-thyroid and other preparations, including				0.5	0.5				
hormones affecting metabolism		2.9	2.8	0·8 3·1	0·8 3·5	0·9 3·9	64 56	68 58	75 63
Preparations affecting nutrition and blood		14·3 7·0	14·9 7·8	1.5	1.6	1.9	53	55	60
Vitamins and vitamin preparations		6.4	5.8	1.2	1.4	1.4	51	54	56
Other drugs affecting nutrition and blood		0.9	1.3	0.3	0.4	0.6	125	115	111
Preparations used in rheumatic diseases		6.0	6.3	2.1	4.1	4.9	119	165	185
Preparations affecting allergic reactions		6.8	6.9	1.4	1.5	1.6	53 30	54 32	55 35
Preparations acting on the ear, nose and oropharynx	8.4	8·6 4·1	8.7	0.8	0.9	1·3 1·0	47	54 54	55
Preparations acting on the eye	17.0	18.0	19.7	6.0	6.6	7.3	85	88	89
Antibacterial agents, fungicides		2.4	2.8	0.5	0.5	0.7	50	54	59
Corticosteroid preparations acting on the skin	9 • 1	9.8	10.7	4.6	5.0	5.4	120	122	122
Vehicles, sedatives, antispetics and other preparation			6 1	1.0	1.1	1.1	41	4.4	44
acting on the skin and muco-cutaneous junctions	5.6	5·8 0·6	6·1 0·5	1·0 0·1	0.2	$0 \cdot 1$	41 72	44 71	73
Immunological preparations Other drugs and preparations (including individually formulated		0.0	0.5	,		1	12	/1	,,,
preparations)	6.9	7.0	6.6	1.0	1.1	1.1	33	37	42
Dressings and appliances		8.6	8.9	3.7	3.9	4.3	110	110	115
Dressings	0.0	6.6	6.8	1.6	1.7	1.8	63	62	63
Appliances	0.4	0.9	0·9 0·1	0·5 0·1	0.6	0·6 0·1	144 238	148 256	168 266
Trusses	1.0	1.0	1.1	1.5	1.6	1.7	357	359	374
		1 -		11	(		4		

Following a change of classification of therapeutic groups, corresponding figures shown in earlier Ministry reports may not be directly comparable with those in this table.

## Basis of Drug Dependence

CURRENT STUDIES DISCUSSED IN LONDON

THE basis of drug dependence was the subject of a recent London Symposium organised by the Biological Council.

SIR AUBREY LEWIS (Institute of Psychiatry, Maudsley Hospital) told how in 1964 the World Health Organisa-tion adopted the term "drug dependence" to describe the phenomena of physical or psychic dependence or both. Criterion of physical dependence was the appearance of withdrawal symptoms on discontinuance. Psychical dependence, varying greatly in form, could develop without physical dependence. Sir Aubrey held the term to be "woolly," since it also covered hypochondriacs who might, for example, take large amounts of salicylates. Sixty to seventy years ago the criterion of "addiction" had been the degree of damage to the central nervous system, and a medical writer of that time had attributed awesome effects to tea. Coffee, tobacco and chloral had also been suspect. To a future generation, therefore, some statements made nowadays about cannabis might seem "overwrought."

### Morphine's Mode of Action

PROFESSOR W. D. M. PATON (department of pharmacology, Oxford University) considered the mode of action of morphine and similar drugs. They appeared he said, to depress the release of transmitter substances in the central nervous system. Some evidence suggested that morphine interfered with the action but not the synthesis of adrenaline and nor-adrenaline; it did not antagonise acetylcholine. Depression of transmitter release was also shown by other drugs such as amphetamines, cocaine and anaesthetics.

But something else was needed to explain underlying action, and there were two possibilities. If output of energy was being "dammed," the concentration of transmitter could eventually rise, overcome the effect of the blocking agent and produce an exaggerated effect of its own. Alternatively, if release of transmitter was being depressed "denervation supersensi-tivity" should result. Workers in depressed Sweden had shown that to be possible. A "rebound" effect could be obtained with acetylcholine and nor-adrenaline, but adrenaline was washed out of the system too rapidly. To demonstrate a rise in concentration of transmitter at the nerve endings, if the second mechanism were operating, was ruled out by practical difficulties, output of transmitter from the nerve being only 1/1000 of the total.

DR. H. O. J. COLLIER (Parke, Davis & Co.) said that repeated treatment of an organ with a drug had been found to make it supersensitive, as did physical denervation. The effect began to develop after a few days of treatment and reached a maximum after a few weeks. Other workers had shown a similar effect to occur in the central nervous system. Pilocarpine and adrenaline, on the other hand reduced the

sensitivity of the salivary glands.

DR. S. K. SHARPLESS, New York,
U.S.A., said that, with adrenergic nerves, two features were involved — a loss of uptake mechanism with resulting degeneration and a slowly developing supersensitivity, the second factor also affecting cholinergic nerves: it was known as "disuse supersensitivity." A reversible, relatively unspecific type of supersensitivity was induced by any blocking drug in nictitating membrane and salivary gland. Suggested explanation was an effect on coupling between receptor sites and the drug. Ganglion cells did not become supersensitive.

Chronic administration of scopolamine was used to study hypothalamic effects of cholinergic drugs in the central nervous system. Subsequent response to pilocarpine was found to increase with time and then to fall.

Experiments suggesting a relation-ship between brain protein synthesis and analgesic tolerance were described by Professor M. Ginsburg (Chelsea College of Science and Technology). That actinomycim prevented tolerance to morphine in rats and guinea pigs had first been noticed in 1965, and he had studied the effect of actinomycin D on acute tolerance to morphine. Tolerance was quickly produced by perfusion of morphine. The pain threshold was not much greater after seven hours than at the beginning of the experiment. It reached and remained at a plateau when actinomycin was given concurrently. No effect was produced by actinomycin alone. Adfour ministering actinomycin after four hours caused the effect of morphine to level off and no further tolerance developed. Site of action appeared to be in the brain, as the intravenous dose required to prevent tolerance from developing was much higher than if the actinomycin were administered intracortically. That assumption, if true, was probably explained by inhibition of protein synthesis. 6mercaptopurine and 5-fluorouracil could also prevent tolerance from developing but they needed to be given some time before the morphine. Puromycin and cycloheximide were also effective.

### Concentration and Tolerance

DR. S. J. MULÉ, Lexington, Kentucky, U.S.A., who had studied the disposition of morphine in the central nervous systems of dogs (both those tolerant and those non-tolerant to it) said that, as tolerance increased, concentrations were found to be lower, the drop after eight hours being "precipitous." Concentrations in white matter were about half those in grey matter. No difference was found between the two sets of animals in levels of free drug in plasma, but in tolerant animals conjugated material was lower after about one hour. Concentration of drug in the cerebrospinal fluid of tolerant animals was almost double that of non-tolerant ones.

Higher morphine levels resulted from administering nalorphine after morphine than when morphine was given alone. No difference was found if the two drugs were given simul-taneously. No metabolite of morphine had been found in the C.N.S. of either tolerant or non-tolerant animals.

PROFESSOR H. REMMER, Tübingen, Western Germany, related barbiturate tolerance to increased breakdown in the liver but, as other drugs such as tolbutamide could also cause such tolerance, it should be regarded as unspecific. The tolerance resulted from quick build-up in liver enzymes accompanied by profound changes in the liver cells, which hypertrophied.

### Effect of pH on Excretion

Professor A. H. Beckett (Chelsea College of Science and Technology) described his work on the effect of urinary pH and water-loading on the excretion of amphetamines. Some drugs, such as ephedrine, were less dependent on pH. Species and diet could affect urinary pH and thus excretion rates. It had been thought that the laevo form of analgesics was the more rapidly excreted but that was now known not to be so.

In the development of new, potent analgesics, said Dr. P. Janssen (Janssen Pharmaceutica, Beerse, Belgium), a logical approach was not yet conceived. For preventing undesirable consequences during major surgery fentanyl was probably the most widely used drug. Its main pharmacological properties were similar to those of morphine but it did not release histamine and was not emetic. What was wanted was a compound that had less effect in depressing respiration. A compound against post-operative pain should be as effective as morphine, act quickly, and have at least a six-hours dura-tion of action. Nalorphine could not be used, as its side effects were similar to those of morphine. Morphine's analgesic effect could be separated from its emetic effects, as in piritramide, which was anti-emetic. New drugs were urgently needed to deal with chronic pain: many of those in use were inactive orally and tended to cause psychological dependence.

A single dose of bezitramide (5 mgm. in the evening) produced a sound sleep in about one hour. It posed no problem of depressed respiration, probably because an acute tolerance was brought on during the onset phase. It was ineffective intravenously, owing to its low solubility in water, and its slow onset of action made it unattractive to addicts.

DR. J. MADINAVEITA (Imperial Chemical Industries, Ltd.) described how new analgesics were examined for addictive properties. Monkeys were used in opiate-type addiction, as it seemed reasonable to assume that they provided a guide to the way a drug would behave in man. From the fact that, in monkeys that had become addicted to morphine and were then challenged with nalorphine, an excessive defaecation occurred, addictive

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properties could be detected by giving the suspect compound in the feed for several weeks and then challenging. A primary compound, iso-propyl 1, 2, 3, 4 tetrahydro  $\beta$  carboline (I.C.I. 49455), about as active as pethidine, was not addictive and not antagonised by nalorphine.

### Self-administration by Monkeys

On the second day of the symposium, DR. T. THOMPSON (University of Minnesota, U.S.A.) described experiments in which catheterised monkeys had been fitted with infusion pumps so that, by pressing a lever, they could inject themselves at will. It had been found that the animals, once toxified, soon readjusted the number of doses they gave themselves. Lack of food caused the monkeys to work harder to obtain the drug. Antagonising morphine by nalorphine, thus depriving the monkey of his "reward," caused a tenfold increase in number of responses.

Environment was important. Rats that were transferred to new cages after being weaned from morphine became readdicted but took less drug than formerly. Rabbits and monkeys would not take barbiturates unless they were periodically shocked. With cocaine there was a relationship between the amount of work done and the amount of drug taken. Dr. Thompson suggested treatment of addicts should take into account the conditions under which they took the drug as well as the drug they used. Punishment was the most harmful method, but hospitalisation should not be considered as punishment. In the United States the most usual treatment was substitution therapy. In rabbits it had been found possible to substitute methadone suffi-

ciently to suppress morphine taking.

DR. G. A. DENEAU (Birmingham,
Alabama, U.S.A.), showed a film of
monkeys self-administering drugs.
Amphetamines caused no convulsions
but after a certain stage too much
food was taken. Occasionally the monkey would take a holiday from the
drug — something that occurred also
with cocaine, never with opiates or
barbiturates. Cocaine caused hyperactivity and self-mutilation, morphine
withdrawal. Codeine cause similar behaviour to morphine but led to fatal
convulsions if overdone.

### Alcoholism in Monkeys

Under alcohol, the monkey would be drunk all day. It ingested enough calories to prevent it from eating and eventually showed all the signs of chronic alcoholism. When the animal seemed on the point of death it recovered spontaneously and went on another "spree." If deprived of alcohol it showed withdrawal convulsions.

Monkeys would take barbiturates but not to the point of becoming unconscious or tolerant. There was no voluntary abstention. Withdrawal symptoms similar to those of alcohol could be induced. Monkeys would take nicotine and caffeine but not chlorpromazine or nalorphine. Psychogenic dependence seemed the most important factor in initiating drug abuse.

Pointing out the advantages (cheap-

ness and reliability) that would be gained in addiction studies if rats could be induced to drink morphine solution, Dr. H. STEINBERG said it had been found that rats premedicated with injections of morphine would learn to drink morphine solutions if given a choice between them and water, presumably to relieve withdrawal symptoms. But with her collaborators Kumar and Stolerman it had now been found that unpremedicated rats would do the same; after about ten days both kinds of rats showed a clear preference for morphine solutions, pro-vided the conditions were right. The preference, which continued over a long period, was not due to the bitterness of the solution, since no preference developed in control experiments using quinine solution,

PROFESSOR C. W. M. WILSON, Dublin, who had studied the consumption of alcohol by rats as part of an attempt to find a scientific basis for comparing alcohol with cannabis, had found that a concentration of 5.5 per cent alcohol proved most attractive. Given a choice of 5.5 per cent, alcohol or water, rats caged singly or in pairs drank significantly more alcohol than those caged in groups. Social environment thus influenced the amount of alcohol consumed and how it was diluted. In man, alcohol had a burning taste above, a sweet flavour below 13.6 per cent. Flavour was important in deciding preference. Metronidazole could raise both sweet and burning taste thresholds and could remove the pleasure of drinking. Maximum effect occurred at forty to sixty-nine hours.

### OVERSEAS NEWS

### CEYLON

### **Imported Drug Prices**

A GOVERNMENT gazette with the selling prices of all drugs imported into Ceylon is to be issued by the Depart-ment of Health Services shortly, nearly 3,000 varieties of drugs whether sold on prescription or not, are affected. Since the price control order on drugs became legally effective a series of gazettes were issued revising the earlier prices. The latest notification will standardise all prices and would be a guide to drug dealers and price control inspectors. The price control order of the Health Department in respect of drugs has resulted in a remarkable decrease in the number of deaths, caused by an overdose. Chemists who have been found guilty of having violated price control regulations are liable to have their licences cancelled and also liable to be sent to prison.

### **IND1A**

### Patent Infringement Claim

A CLAIM of infringement of patent made by Farbwerke Hoechst, West Germany against the Unichem Laboratories, Ltd. of Bombay and the State of Maharashtra has been upheld by the Bombay High Court. The dispute arose out of two patents covering tol-butamide namely Indian patent of Hoechst and Indian patent held by the Haffkine Institute. The case assumed topical importance as the Patent Law (Amendment) Bill is due in Patliament (Amendment) Bill is duc in Parliament in the coming session. Hoechst contended that Unichem Laboratories were manufacturing and selling tablets of tolbutamide under the trade name Uni-Tolbid in contravention Hoechst's patent taken out in 1956. It was their claim that the compound prepared by whatever process was falling within their claims in their patent. In defence, Unichem Laboratories, the licensees and the Haffkine Institute contended that they were manufac-turing a compound which was known by the generic name tolbutamide by process not specifically covered by Hoechst's patent. As patent is not granted in India for a "product" per se but for a "product manufactured by a particular process" they had not committed any infringement whatsoever.

It was argued that Hoechst's claims in the patent encompassed millions of compounds which were not actually synthesised or tested. They further contended that Hoechst's specification tried to cover a monoply for a field which the inventor had not invented and rendered the whole patent invalid and as a consequence the question of infringement could not arise. While upholding the claim of infringement of the plaintiffs, Mr. Justice Vimadalal, granted the injunction against the manufacture of tolbutamide. He observed that what plaintiffs had to prove was that process of synthesising the compound tolbutamide was a process falling within their patented process. Facts admitted on pleading by the defendants were sufficient to show infringement of the claims of the patent.

## MANUFACTURERS' ACTIVITIES

Reward for Export Performance.-Before presenting the Grant of Appointment and the Queen's Award to Industry 1968 to Glaxo Group, Ltd., on July 19, the Lord Lieutenant for Greater London (Sir Gerald Templer) was taken on a tour of part of the company's Greenford factory. Representatives from all the Group's units were able to follow the tour on closedcircuit television with commentary by Steve Tysoe (personnel officer). In expressing the pleasure at being able to present the award for the second year in succession, Sir Gerald said that the Group's export achievement was the more notable in that the countries where great progress had been made were recognised as the most difficult. In the year ended June 30, 1967, exports had increased by 28.3 per cent. Over a four-year period they had increased by more than 72 per cent. Those to West Germany went up by 37 per cent., France by 45 per cent., Switzerland by 61 per cent and Japan by 163 per cent. Mr. A. E. Bide (chairman, Glaxo Laboratories, Ltd.) said that to mark the receipt of the reward the directors would set aside a sum of £5,000, 10 per cent. going to Glaxo Good Fellowship funds and the rest to various sports and social clubs of the Group.

### TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various eharges have to be added whereby values are augmented before wholesale dealers receive the goods into stock.

LONDON, JULY 24: A number of CRUDE DRUGS are becoming difficult to find on the spot and buyers are finding that position reflected in higher prices. Among the items increased during the week were Cape ALOES up 5s. cwt. and Cochineal, up 1s. 6d. lb. for all varieties, Gentian remained nominal in both positions, any stock available would command a 25s.-cwt. premium over the last quoted figure. Lower because of new crop coming forward were Canada Balsam (down sixpence lb.) SENEGA (down one shilling lb.) and Moroccan FENUGREEK (down 2s. 6d. cwt.). Shipments of Tinnevelly SENNA LEAVES and PODS from the Port of Tuticorin during June were as follows:

	U.K.	U.S.	Еигоре
Senna	tons	tons	tons
LEAVES	13	21	161
PODS	3	_	231

Among Essential Oils, Arvensis Peppermint from both China and Brazil was slightly dearer while Madagascar CLOVE LEAF rose ninepence lb. for shipment.

### Pharmaceutical Chemicals

Adrenaline.—(Per gm.). Synthetic B.P., 1-kilo lots, 1s. 2d.; 500 gm. is 1s. 4d. acid tartrate, B.P., 1 kilo,  $10\frac{1}{2}$ d.; 500 gm. 1s.

BISMUTH SALTS.—(Per kilo):—												
Quantity	Under 50	50	250									
CARBONATE SALICYLATE SUBGALLATE	s. d. 92 0 81 0 78 0	s. d. 90 0 79 0 76 0	s. d. 89 0									

SUBGALLATE SUBNITRATE	. 78 0 . 83 0	76 0 81 0	80 0
Bromides	-Crystals	(per kilo):	:
	Under 50 kilos	50 kilos	250 kilos

s. a. 5 10½ 5 10½ 6 9½ POTASSIUM\*... SODIUM ...  $\begin{bmatrix} 6 & 5 & 5 & 10 \\ AMMONIUM ... & 7 & 4 & 6 & 9 \\ \end{bmatrix}$ \* Powder is fourpence per kilo more.

CALCIUM CARBONATE.—B.P. light precipitated powder, 1-ton lots, £38 10s. per ton in free bags, ex works. PREPARED powder, £22 10s. per ton.

CALCIUM CHLORIDE.—Fused, 437s. 8d. per 100 kilo in  $12\frac{1}{2}$  kilo tins.

CALCIUM LACTATE.—B.P. 250 kilo lots is £412 per 1,000 kilo.

CITRATES.—SODIUM, £255, £250, £241 per metric ton for 50, 250, 1,000 kilo lots respectively. Potassium, £268, £263, £254 metric ton. IRON AND AMMONIUM, granular 9s. 8d., 9s. 7d., 9s. 1d. kilo; scales 13s.; 12s. 8d., 12s. 5d. kilo.

GLYCEROPHOSPHATES. — Per kilo in 50 GLYCEROPHOSPHAIES. — PET KIIO III 30 kilo lots; CALCIUM, B.P.C., 29s. 6d.; IRON 37s. 10d.; MAGNESIUM, 39s. 11d.; MANGANESE, 57s. 5d.; POTASSIUM, 50 per cent., B.P.C., 9s. 8d.; SODIUM, 50 per cent., B.P.C., 6s. 11d. and powder, B.P.C., 1949, 22s. 10d.; GLYCEROPHOSPHORIC ACID, 20 per cent., 12s.

Hypopuospuites \_\_Per kilo -

HYPOPHOSPHITES.—FCI KIIO.—											
Quantity	5 kilos	12.5 kilos	50 kilos								
CALCIUM, B.P.C. IRON, B.P.C. MAGNESIUM MANGANESE, B.P.C. POTASSIUM, B.P.C. SODIUM, B.P.C.	s. d. 21 8 39 3 — 27 1	s. d. 17 10 38 0 31 2 37 3 24 9 20 1	s. d. 16 7 36 9 29 11 36 0 23 6 18 10								

MERCURY SALTS.—Per kilo for under 50-kilo lots—AMMONIATED powder, 161s.;

PERCHLORIDE, 139s.; SUBCHLORIDE, 164s. OXIDES, yellow, 170s. and red, 174s. IODIDE (20-kilo lots), 118s.

PARAFFINS.-Prices to wholesale distributors per gall. delivered in drums.—Liquid HEAVY B.P., 8s. 11½d. for over 5-drum lots; 5 drums and under 9s. 0½d. LIGHT B.P., 75. 4\(\frac{1}{2}\)d. and 75. 5\(\frac{1}{2}\)d. and 75. 5\(\frac{1}{2}\)d. for same quantities: Technical white: Light, 6s. 9d. and 6s. 10d.; MEDIUM, 7s. 10d. and 7s. 11d. All subject to twopence per gall. surcharge. Drums charged and returnable. Soft: WHITE nominally \(\frac{1}{2}\)E131 ton and YELLOW, \(\frac{1}{2}\)E17-E106. All in non-returnable drums £87-£106. All in non-returnable drums delivered.

Salicylamide.—250-kilos, 13s. 33d. per

THEOBROMINE.—ALKALOID from 25s. 11d. per kilo, c.i.f.

Theophylline.—50-kilo lots and over: B.P., 34s. 9d. per kilo; hydrate, B.P., 34s. and aminophylline, 34s. per kilo.

### Crude Drugs

ALOES.—(Per cwt.). Cape primes. 265s., spot, 255s., c.i.f.; Curacao, 510s.; 490s., c.i.f.

BALSAMS.—(per lb.). CANADA: 34s., c.i.f., 34s. 6d. spot; COPAIBA: B.P.C., 10s. 9d.; c.i.f.; 10s. 6d., spot; Peru: 12s. 9d. to 13s. 9d., c.i.f.; 13s. 3d. spot; Tolu: B.P., 13s.-14s.; genuine as imported, 41s. 6d., c.i.f.

Cochineal.—(Per lb.). Canary Isles silvergrey, spot, 28s. 6d. nominal, 28s.6d., c.i.f.; black brilliant, 30s. spot and c.i.f. Peruvian silver grey, 22s. 6d. nominal, 22s. c.i.f., nominal.

GENTIAN.--Spot, 260s. cwt.; 250s. c.i.f., both nominal.

GINGER. — (Per cwt.) — Nigerian split, 135s.; peeled, 145s.; 145s., c.i.f. 160s. (new crop), Jamaican No. 3, 340s. and Cochin, 310s., spot; 290s., c.i.f.

Gum Acacia.—Kordofan cleaned sorts, 245s. cwt. spot; 244s., c.i.f.

KOLA NUTS.—West African halves 8d. lb. spot nominal; shipment, 7½d., c.i.f.

LANOLIN.—ANHYDROUS, B.P. is from 2s. 2½d. to 2s. 6d. per lb. in 1-ton lots delivered free drums. Commercial grades from 1s. 4½d. and cosmetic, 2s. 8d.

LEMON PEEL.-Spot, 2s. 9d. lb., 2s. 6d.,

MACE.—Grenada No. 1, spot, 9s. 6d. lb.

MENTHOL.—(lb.). Chinese, 37s. 6d.; spot, August-Scptember, 32s. 3d., c.i.f. Brazilian, 29s. spot; 28s. 3d., c.i.f.

MERCURY.-Spot, £214 per flask of 76 lb., ex warehouse, nominal.

SEEDS.—Moroccan FENUGREEK, new crop, easier at 57s. 6d. cwt., c.i.f. Prices of other seeds unchanged.

SENEGA.—Canadian, spot, 31s. lb.; new crop, 30s., c.i.f. Japanese, 27s. 6d., in bond.

Senna.—(Per lb.) Tinnevelly Leaves spot; SENNA.—(Per lb.) Innevelly LEAVES spot; Prime No. 1, 2s. 3d.; No. 3, f.a.q., 1s. 4½d.; shipment, No. 3, ls. 2½d., c.i.f. PoDs: Tinnevelly hand-picked, spot, 2s. 10d.; manufacturing 1s. 9d. Alexandria hand-picked, from 4s. 6d. to 7s. as to grade; manufacturing forward, 2s. 2d., c.i.f.; spot 2s. 4d.

TRAGACANTH.—No. 1, £280 cwt.; No. 2, £250 spot.

Tonquin Beans. — Para. 9s. lb., c.i.f. (10s. spot); Angostura seconds, 7s. landed.

TURMERIC.-Madras spot, 197s. 6d. cwt.; shipment and afloat, 180s., c.i.f.

WAXES .- (Per cwt.) Bees', Dar-es-Salaam, 780s., c.i.f. CANDELLILA, 550s., spot; CARNAUBA, fatty grey, 335s.; 312s. 6d., c.i.f.; prime yellow, 465s.; 425s., c.i.f.

### **Essential and Expressed Oils**

ALMOND.—Imported, 5s. lb. spot.

AMBER.—Rectified, spot 1s. 6d. per lb.

Anise.—Chinese, 17s. lb.; shipment, 16s., c.i.f., July-August.

CAMPHOR, WHITE. - Spot, 7s. 1b., duty paid.

Cananga.—Java, 24s. per lb.

CARAWAY.—Spot, 55s. lb.

CARDAMOM. — Imported, 500s. per lb.; English distilled, 550s.

Cassia.—Spot from 25s. per lb. for 80-85 per cent.

CASTOR.—B.P. £207 ton, naked, ex mill.

CELERY.—Indian, 135s. per lb.; English,

CINNAMON. — English-distilled, 75s. per oz.; other B.P. oils from 22s. to 130s. per lb. Ceylon leaf, 18s.; Seychelles leaf rectified, 20s.

CITRONELLA.—Ceylon, 6s. 6d. per lb. spot, 6s. 2d. c.i.f.; Formosan, 5s. 10d., in bond; 6s. 6d., c.i.f.; Chinese, 4s. 8d., in bond; 4s. 9d., c.i.f.

CLOVE.—(lb.) Madagascar leaf, shipment, 13s. 9d., c.i.f.; spot, cleared, English-distilled bud, 35s. (1-cwt. lots).

COD-LIVER.—B.P. in 45-gall. drums at 12s. per gall., plus 30s. deposit on drums. Veterinary is from 9s. 10d. per gall. 25-ton lots. Delivered terms.

CORIANDER.—From 41s. per lb. spot.

CUBEB.—English distilled, 100s. per lb. CUMIN.—English distilled oil from 120s.

per lb. 1mported from 110s. DILL.—Dutch, 56s. lb., spot (55s., c.i.f.).

EUCALYPTUS.—Chinese, 80-85 per cent., 10s. 7½d. per kilo in bond; 10s. 6d., c.i.f.

FENNEL.—Spanish sweet, 13s. 6d. lb. GERANIUM.—Bourbon, 97s.-100s. lb.

GINGER.—Imported (per lb.); Indian, 165s., Chinese, 80s., Jamaican, 175s.

GRAPEFRUIT.-Florida, 25s. lb., spot. JUNIPER BERRY.-English distilled, 270s.

lb.; imported, 65s.

LAVANDIN.-French, 22s. 6d. to 25s. lb. LAVENDER.—French, 50s. to 60s. lb.

LAVENDER SPIKE.—Spanish, 22s. 6d. per lb. LEMON.—Sicilian, 48s. to 55s. lb. as to crop.

LEMONGRASS.—Shipment, 39s. 6d. kilo,

c.i.f. (July-August).

OLIVE.—Spot £348-£355 per ton ex wharf.
Shipment: Spanish, £278-£285 metric ton f.o.b.; Tunisian, £280-£290 c. and f., London.

ORANGE.-Florida sweet, 4s. 6d. per lb.; Spanish from 19s. PALMAROSA.—190s. kilo (178s., c.i.f.).

PATCHOULI.—Spot, 27s. to 30s. per lb. duty paid; shipment, 25s. to 26s., c.i.f.

PENNYROYAL.—From 19s. lb., duty paid. PEPPERMINT.—(Per lb.), Arvenis: Chinese 11s., spot; 10s. 7d., c.i.f. Brazilian, 10s. 9d., spot, 10s. 7½d., c.i.f. American Piperata, 40s, to 47s. 6d.; Italian, 95s.

SAGE.—Spanish, 18s. 6d. per lb.; 36s. 6d.

SANDALWOOD.—Mysore spot, 140s. lb., East Indian, 305s. per kilo, c.i.f.

TANGERINE.—From 38s. to 46s. 6d. lb.

### UNITED STATES REPORT

NEW YORK, JULY 23: Brazilian MEN-THOL rose 5 cents to \$4.15 per lb. CITRONELLA OIL prices range from 85 cents to \$1 per lb. CELERY OIL increased by 50 cents to \$15-20 lb.

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### PATENTS

COMPLETE SPECIFICATIONS ACCEPTED From the "Official Journal (Patents)," July 17, 1968

Tablet press. Pennsalt Chemicals Corporation. 1,125,163.

Safety package for dangerous liquids, Allied Chemical Corporation, 1,125,186, Virus preparations. American Home Products

Corporation, 1,125,210.

Antibiotic lydimycin and the manufacture thereof. Upjohn Co. 1,125,323.

Penicillins. Beecham Group, Ltd. 1,125,339. Pharmaceutical compositions containing sulphoxides. Merck & Co., Inc. 1,125,409.

Pharmaceutical compositions containing sulph-

ones. Merck & Co., Inc. 1,125,410.

Method of dyeing hair and pressurized container for dispensing dye. Hans Schwarzkopf. 1 125.528.

Surgical suture package. Armour Pharmaceutical Co., Ltd., and R. B. Christie. 1,125,538. Erythromycin derivatives. Abbott Laboratories. 1.125.544.

Penicillins. Beecham Group, Ltd. 1,125,557. Dispersant compositions and toxicant concentrates containing the same. Witco Chemical Co., Inc. 1,125,610.

Fungicidal compositions and compound for use in such compositions. Murphy Chemical Co., Ltd. 1,125,647.

Stable ascorbic acid composition and process for preparing the same. Kyowa Hakko Kogya Co., Ltd. 1,125,675.

Antibiotics and the manufacture thereof. Upjohn Co. 1,125,723.

Compositions for scalp treatment, B. H. Roney, 1,125,800.

British patent specification relating to the above will be obtainable (price 4s. 6d. each) from the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C.2, from August 28, 1968.

### TRADE MARKS APPLICATIONS ADVERTISED BEFORE REGISTRATION

"Trade Marks Journal," July 10, No. 4689 BIOCHEK 60, B917,667, by Calgon Corporation, Pittsburgh, Pennsylvania, 15230, U.S.A. For biocides for use in the treatment of paper to render it self-sanitising, and medi-

cated paper treated with biocides (5) CHINAVIT, B914,682, by A. Nattermann & Cie, G.m.b.H., Koln-Braunsfeld, 1, Germany. For medicaments and pharmaceutical sub-

stances (5)

stances (5)
AUXILOSON, 915,795, AUXISONE, 918,672,
by C. H. Bochringer Sohn, Ingelheim-onRhine, Germany. For pharmaceutical, veterinary and sanitary preparations and substances; medical and surgical plasters;
material prepared for bandaging; disinfectants and antiseptics; and preparations for killing weeds and destroying vermin (5)

PAEDICILLIN, 921,151, by Beecham Research Laboratories, Brentford, Middlesex. For pharmaceutical preparations and substances

DRAT, 921,578, by May & Baker, Ltd., Dagenham, Essex. For preparations for kil-ling weeds; fungicides, insecticides and rodenticides (5)

LORIDA (device), 918,328, by Loring, A.G., Mettmenstetten, Switzerland. For babies' napkins made of non-woven cellulose wad-

NEUTROSES-VICHY, 918,704, by Pointet et Cie, Paris, 17, France. For pharmaceutical

products (5)

Aid Services (Safe-Aid), Ltd., Liverpool, 15.
For cleansing pads, tissues and swabs, all For cleansing pads, tissues and swabs, all being medicated; material prepared for bandaging; medical and surgical plasters and dressings; compresses; medicated cellulosic wool; lint and tissues, all for medical purposes; and gauze for dressings (5)
AVADEX, 919,572, by Monsanto Co., St. Louis, Missouri, U.S.A. For herbicides (5)
HAYNON, 921,622, by R. P. Drugs, Ltd., Leeds, 7. For pharmaceutical and veterinary preparations and substances (5)

preparations and substances (5)

Q-FILE, 910,393, by Thorn Electrical Industries, Ltd., London, W.C.2. For dark room lamps and flash lamps for photographic

purposes, etc. (9) LEGOMETRIC, 919,566, by Scholl Mfg. Co., Ltd., London, E.C.1. For articles for correcting deformities of the feet and for

recting deformates of the feet and for exercising the feet (10) SCHICK, B918,710, by Schick Electric, Inc., Lancaster, Pennsylvania, U.S.A. For face steaming and drying apparatus and installa-tions, and parts and fittings (11)

### "Trade Marks Journal," July 17, No. 4690

PREPUREX, 921,864, by Wellcome Foundation, Ltd., London, N.W.1. For substances for use in diagnostic tests (1)

AFT, B904,179, by Hans Schwarzkopf-Ver-waltung, G.m.b.H., Hamburg-Altona, Gcr-

many. For hair lacquer (3)

LIN ABART (device), 908,085, by Teco Iberica, S.A., Barcelona, Spain. For extracts for use perfumery and essences; essential oils; perfumes; non-medicated toilet preparations; cosnietics; nail lacquers and nail varnishes; lotions, hair dyes, shampoos and bril-

nan tollows, had ayes, shampoos and ordinatine; dentifrices (3)

ROMNAY COLORSTIX, B913,729, by Romney Cosmetics, Ltd., Sandwich, Kent. For perfumes, lipsticks, nail varnishes; cuticle softeners, being non-medicated toilet prepara-

tions; cosmetics for the eyes and rouge (3) AINSI, 917,992, by J. & E. Atkinson, S.p.A., Milan, Italy. For soaps, perfumes, cosmetics, Milan, Italy. For soaps, perjames, cosmence, essential oils, non-medicated toilet preparations for the hair and dentifrices (3)
TENDER GLOW BY VITAPOINTE, 918,910, by Fisons Pharmaceuticals, Ltd., Lough-

oy FISONS FRATMACEURCAIS, Ltd., Lough-borough, Leics. For soaps, perfumes, cos-metics and preparations for the hair (3) GERMISTAT, 918,983, by Procter & Gamble, Ltd., Gosforth, Newcastle-on-Tyne. For

soap; etc. (3)

THATCHIT, B919,839, by Carew Products, Ltd., Heston, Middlesex. For hair growing preparations (3)

KUROFIX, 920,487, by Clynol, Ltd., London, W.1. For soaps, perfumes, non-medicated toilet preparations, cosmetics, essential oils,

yreparations for the hair and dentifices (3)
YRAM, 921,871, by Mary Chess, Ltd., London, W.1. For perfumes, non-medicated toilet preparations and cosmetic prepara-

DELFORM, 913,956-57, by Mediline, A.G., Lucerne, Switzerland. For perfunes, eau de Colognes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos and soaps (3) and for deodorants, anti-perspirants, disin-fectants; pharmaceutical, veterinary and sanitary preparations and substances (5) VESPHENE, 919,511-12, by W. R. Grace & Co., New York, U.S.A. For soaps; etc. (3) and for sanitary preparations and substances;

germicides, herbicides, pesticides, fungicides, disinfectants and germicidal detergents, pre-parations for killing weeds and destroying vermin (5) MINERS M

M (device), 907,974, by Miners Make Up, Ltd., Surbiton, Surrey. For medicated preparations for the scalp and skin; cated preparations for the scalp and skin; medicated bath preparations, liquid eye washes, medicated paper, medicated pads for the eyes, breath freshening preparations, medicated oils and deodorants (5)
METRIJET, B911,142, by Organon Laboratories, Ltd., Morden, Surrey. For pharmaceutical preparations and substances, all for intra-uterine use in cattle by injection or by swinge (5).

by syringe (5)
ENTERALIN, 914,388, by Horlicks Pharmaceuticals, Ltd., Winkfield, Windsor, Berks. For pharmaceutical preparations and sub-staices, all for intestinal use (5) BRONCHIFLUX, B914,684, by A. Nattermann

& Cie., G.m.b.H., Koln-Braunsfeld, 1, Germany. For medicaments and pharmaceutical substances, all for the treatment of

the bronchi (5)
CLORICIN, 921,338, by Imperial Chemical Industries, Ltd., London, S.W.1. For pharmaceutical preparations and substances for human and veterinary use; sanitary sub-stances and disinfectants (5)

### PRINT AND PUBLICITY

"CLARIFICATION of Intravenous Solutions by Millipore Filtration" the latest in a series of reports published by Millipore (U.K.), Ltd., Heron House, 109 Wembley Hill Road, Wembley, Middlesex. The report details "elean system" design principles and describes how the company's apparatus may be used to minimise particular contamination. Quality control procedures are also outlined.

### PRESS ADVERTISING

R. Brandt (Mfg.) Co., Ltd. (distributors: Thos. Christy & Co., Ltd., Aldershot, Hants): Fiona eye lashes. In Honey, Nineteen, Petticoat, Weekend, Woman, Woman's Own and Thomson Weekly News.

Lumbon weekly News.

SCOTT & BOWNE, LTD., 50 Upper Brook Street,
London, W.1: 4711 Cologne products, In

Daily Express and Daily Mirror and "shopping features" of women's magazines and

Research Disc. ping features" of women's magazines and Reader's Digest.

SMITH KLINE & FRENCH LABORATORIES, LTD., agricultural division, Welwyn Garden City, Herts: Helmatac worm drench, In farming journals.

TONI Co., 101 Syon Lane, Great West Road, Isleworth, Middlesex: Toni products "Win a Dream" competition. In Woman's Own.

HITE LABORATORIES, LTD., Penarth Street, London, S.E.15: Meggezones and junior Meggezones, In national Press.

### PUBLICATIONS Catalogues and Lists

JOHNSONS OF HENDON, LTD., 335 Hendon Way, London, N.W.4: Johnsons amateur cata-logue, "The Johnson Way to Better Photography" (new edition, cover price sixpence).

N.V. PHILIPS' GLEOILAMPENFABRIEKEN. hoven. The Netherlands: "Basic Isotope Laboratory" (range of instruments for detection, measurement and recording of

### COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

### Thursday, August 1

HUDDERSFIELD BRANCH, PHARMACEUTICAL So-CIETY, Pack Horse hotel, Kirkgate, Huddersfield, at 7.45 p.m. Quiz and domestic meeting.

### Sunday, August 4

North Metropolitan Branch, Pharmaceutical SOCIETY, Hertfordshire Young Mariners' Base, Windmill Lane, Cheshunt, at 10 a.m. Sailing regatta and racing for trophy provided by Unichem, Ltd. Entrance fee covering all races: 5s. Light refreshments in clubhouse. Spectators welcome.

### Courses and Conferences

INSTITUTE OF PACKAGING, Eastbourne, Sussex, October 2-5. National conference, Theme: "Packaging—the challenge of change." Details from the Secretary, Institute of Packaging, Malcolm House, Empire Way, Wembley, Middlesex.

NATIONAL PHARMACEUTICAL UNION, Birming-ham (venue to be arranged), at 2.30 p.m. on October 2. Management training seminar. £7 7s. approx. Numbers restricted to thirty.

### Advance Information

AGRICULTURAL AND VETERINARY PHARMACY GROUP, PHARMACEUTICAL SOCIETY, Pharmaceuticals Division, Imperial Chemical Industries, Ltd., Alderley Park, Macclesfield, Ches., at 2.30 p.m. on September 5 2.30 p.m. on September 5. Demonstrations at I.C.I. home farm on "Growth Promotion." At 6 p.m. Dr. Spinks (deputy chairman and director of research, I.C.I. pharmaceuticals division) on "Research in the Light of the Medicines Bill (Act)."

# Prescribers

What doctors are reading about developments in drugs and treatments

FURTHER evidence of the effectiveness of disodium cromoglycate is presented in two contributions to the Lancet. Workers at the Institute of Diseases of the Chest, London, have examined the compound's inhibitory effects on allergen-inhalation tests. Ten patients chosen for testing all gave well-defined reactions to inhalation of specific antigens; five were asthmatic and gave immediate reactions; two had allergic bronchopulmonary aspergillosis and intermediate and late asthmatic reactions, and three were bird-fanciers who gave late reactions attributed to avian precipitins. In all cases pretreatment with inhated disodium cromoglycatc inhibited the reactions. The authors suggest that inhibition of the immediate reactions may be due to interference with the release of vasoactive and other sub-stances, such as histamine and slowreacting substance of anaphylaxis, and that that inhibition may in turn lead to the inhibition of later reactions, thought to be precipitin-mediated. The observations did not, however, suggest that the compound blocks the antigen-antibody reaction. In addition to its possible clinical value, the authors anticipate for the compound a rôle as a valuable tool for the study of immunological mechanisms of respiratory allergic disease. A double-blind cross-over trial of disodium cromoglycate (Intal) in the treatment of allergic bronchial asthma is reported from Glasgow Royal Infirmary. Both drug and placebo capsules contained isoprenaline sulphate to overcome possible bronchospasm due to inhalation of dry powder (some previous trials have been criticised on the grounds that benefit might have been due to iso-prenaline present in Intal). Twenty-one patients completed the trial, taking drug and placebo in random sequence in three successive one-month periods. No change was made in existing drug regimens and patients were free to vary steroid and bronchodilator their

dosage. Patients assessed their own symptoms and kept a day and night record. During drug periods there was significant improvement in asthma, cough and day-time inhaler usage. Although there was no significant difference in the amount of steroid used it was on average halved during drug periods. There was no evidence of loss of potency on successive exposures to the drug and no important unwanted side effects were noted. The authors conclude that disodium cromoglycate will improve the general level of wellbeing of many patients with allergic bronchial asthma, and will decrease requirements of bronchodilators and perhaps steroids, although they say it will not necessarily replace conventional therapy (Lancet, July 20, pp. 134 and 137).

CORTICOSTEROID ointments tend to be used as a dermatological panacea and their misuse is often the cause of commonly observed iatrogenic skin disease, claim workers at St. John's Hospital for Diseases of the Skin, London. The authors report fourteen cases in which local application of corticosteroid preparations to ringworm infections of the skin had resulted in clinical pictures that were difficult to diagnose (invasion of the area by Trichophyton rubrium for example). It is suggested that the corticosteroids are used in such cases because patients self-medicate with hoarded ointments and because doctors realise that prompt relief of symptoms can be provided while systemic immune responses usually contain the infection—thus assuring patient satisfaction. The best form of prophylaxis, say the authors, is an increased awareness of tinea, especially in cases of groin and unilateral hand eruptions (B.M.J., July 20,

FOLLOWING their demonstration of the cardiac effects of I.C.I. 50172 (4-(2hydroxy-3-isopropylaminopropoxy) acetanilide) (see C. & D., February 3, p. 110), workers at the National Heart Hospital and Institute of Cardiology, London, have carried out a clinical trial in nineteen patients in congestive heart failure or in the postoperative period following valve replacement. Ventricular rate was controlled in seven of eight patients with atrial fibrillation, in six of nine patients with supraventricular tachycardia and in two

patients with sinus rhythm. The drug is a beta-adrenergic receptor blocking agent but the trial has confirmed significant differences from propranol. Action was found to be rapid in onset; there were no important side effects. Dosage was 5 mgm. initially by intravenous injection, followed by 5 mgm. at intervals of one to two minutes if necessary to a total of 25 mgm. (B.M.J., July 20, p. 161).

MEAN concentrations of the three main pesticides, BHC, dieldrin and DDT, in the human body in Great Britain have decreased over the last few years, report the Ministry of Health's principal medical officer (toxicology) (Dr. R. Goulding) and workers at the Government Chemists' laboratory. Their finding is based on fat samples taken at preceptive between samples taken at necropsy between July 1965 and June 1967, the results being compared with samples taken in 1963-64 and 1961-62. DDT residues in Britain remained at a low level in comparison with most other countries (B.M.J., July 20, p. 146).

### **CONTEMPORARY THEMES**

Subjects of contributions in current medical and technical publications.

NARCOTICS ADDICTS TREATED WITH METHADONE. Menstrual function and pregnancy in. Nature,

July 13, p. 180. Wick chromatography for rapid and reliable immunoassay of insulin, glucagon a growth hormone. Nature, July 13, p. 193.

Antibiotics, Diffusion of from plasma into prostatic fluid. Nature, July 13, p. 139.
DISODIUM CROMOGLYCATE. Inhibitory effects of,

on allergen-inhalation tests. Lancet, July 20, p. 134.

DISODIUM CROMOGLYCATE in the treatment of allergic bronchial asthma. Lancet, July 20, p. 137.

ACID AND PEPSIN RESPONSE to gastrin I, pentagastrin, tetragastrin histamine and penta-gastrin snuff. Lancet, July 20, p. 139. Organochlorine pesticide residues in human

fat in Great Britain. Brit. med. J., July 20, p. 146.

ANTI-INFLAMMATORY AGENT (INDOMETHACIN). Trial of, in low back pain with and without radicular involvement. Brit. med. J., July 20,

p. 158. I.C.I. 50172. Clinical use of, as an antidysrhythmic agent in heart failure. Brit, med.

J., July 20, p. 161.

MITHRAMYCIN treatment of malignant hyper-

Calcaemia. Brit. med J., July 20, p. 167.

ANALGESIC AND ANTI-INFLAMMATORY EVALUATION
OF THYMOTIC' ACID and certain homologs.
J. pharm. Sci., June, p. 989.

### COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during the week covered, be screened seven times and for a total of 105 seconds.

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